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TRANSCRIPT OF PROCEEDINGS,
(Edited)

HEARING ON
PROBLEMS OF THE AREAS OF ORIGIN
AND THE AREAS OF DEFICIENCY

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LEGISLATIVE REFERENCE
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SUBCOMMITTEE ON WATER,
WILLIAM W. HANSEN, CHAIRMAN

Assembly Interim Committee on
Conservation, Planning and
Public Works.

SUBCOMMITTEE ON WATER
WILLIAM W. HANSEN, CHAIRMAN

HEARING ON PROBLEMS OF THE AREAS OF ORIGIN
AND THE AREAS OF DEFICIENCY

November 4, 1955
Room 4202, State Capitol
Sacramento, California
10 A. M.

MEMBERS PRESENT:

William W. Hansen, Chairman
Bruce F. Allen
Frank P. Belotti
John L. E. Collier
Pauline L. Davis
Vernon Kilpatrick
Francis C. Lindsay
Lloyd W. Lowrey
Patrick D. McGee
Allen Miller
Eugene B. Nisbet
Jack Schrade
Jesse M. Unruh
Caspar W. Weinberger

OTHER LEGISLATORS PRESENT:

Carley V. Porter
Harold T. Sedgwick

STAFF MEMBERS PRESENT:

Samuel E. Wood, Research Director
Patricia Herrick, Secretary

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CHAIRMAN HANSEN: Yesterday, we operated until about six-thirty, but we started half an hour late and it crowded one of our witnesses over into today.

Before we go on to the new subject of county of origin, we're going to hear the rest of our testimony on gravity water plans and other types of water plans and get all of the testimony in one place. We're going to give Mr. Wiley, a young gentleman of about eighty-one or eighty-two years, who has been talking about water before some of us were in long pants, about a half an hour to put his material into the record for us before we go on to the county of origin matter. Without any further delay, will you please give us your testimony, Mr. Wiley?

MR. W. M. WILEY, IRRIGATION ENGINEER, BAKERSFIELD:

Mr. Chairman and members of this Committee, I am very pleased to meet with you here today, even if I am a day late because I've been about twenty-five years trying to make this little dab of a talk. (See Ed. note) (Also see Exhibit A)

Ed. note: Mr. Wiley's testimony was recorded but cannot be interpreted as his entire presentation revolved about a large map which he brought into the hearing room. It would be difficult to relate this witness' recorded testimony to his visual presentation.

However, his testimony was transcribed and is available to anyone wishing to read it.

CHAIRMAN HANSEN: Thank you very much. Now I think we'll have to get on with our County of Origin hearing, but it's certainly been a pleasure for me to have you appear here. I've heard about the Wiley plan. I'd like to comment that I hope I'm

as good as you are when I'm 82 years old. I'd like to acknowledge the presence of Assemblymen Caspar W. Weinberger, Jesse Unruh and Lloyd Lowery. We would be glad to have you up here, Lloyd, if you'll come up. Now, before we proceed, I would like to have put into the record a letter from Mr. G. A. Shaffer of 710 Taylor Street, San Francisco, who has some type of a plan, but he's unable to present it personally so we'll put it into the record. (See Exhibit B) That will conclude the presentations of routes and so forth for yesterday's testimony.

Today we'll take up as our regular agenda the County of Origin problem. That's going to be a real stumbling block, I think, in any state-wide water plan. To sort of set the tone of the discussions, I'd like to make a short presentation of my own.

Fresno County is a County of Origin, as well as a county of deficiency. It's also a county of tremendous agricultural development which is being infringed upon by the usual California urban development. We've also had some of our County of Origin water taken away from us and moved elsewhere by the federal government and we even have a test case going on as to whether the thinking of the Attorney General that it could be brought back is going to be possible. We don't know how that's going to turn out.

Now this, of course, is not my idea. This is what I sense is the idea of the water lawyers in our area. It's not unanimous by any means, but it's their idea as I understand their discussions. In 1919, Colonel Robert B. Marshall, Chief Geographer for the United States Geological Survey recommended a plan for reservoirs on the principal rivers and canals along the foothills

on either side of the Central Valleys to more efficiently distribute the State's water supply. In 1921, the Legislature authorized an investigation of the State's water resources and a report of that investigation was made to the Legislature in 1923. Work on a practical state-wide project was continued in 1933. The Central Valley Project was authorized. This project was taken over by the United States Bureau of Reclamation on September 10, 1935 and completion of its plans resulted in the construction of the Shasta and Friant Dams, the Delta-Mendota and Friant-Kern Canals.

To implement these state-wide projects, the Department of Finance was authorized by the Legislature in 1927 to file application for any unappropriated water which may be required in the development and completion of any coordinated or general plan for the conservation of water resources of the State. Such filing gave the State priority of right over all subsequent appropriations. The Department of Finance was authorized to sign such a filing or any permit thereon to anyone, including state agencies in the United States for purposes of development not in conflict with the general plan, Water Code Section 10,505. Pursuant to this authority, the Department of Finance filed applications to appropriate all the unappropriated water on the principal streams originating in the Sierras, including the Sacramento and San Joaquin Rivers and their tributaries.

As the plans for the Central Valleys Project progressed and more ambitious projects reached the drafting table, it became obvious that the constitutional and legislative policy of California could permit the draining of all unappropriated water from the

mountain, foothill and other undeveloped areas, leaving no supply of water for their future needs. This would mean a complete loss of future growth in the undeveloped areas for the present benefit of the commercial industrial areas which were in turn displacing agricultural production. There was thus disclosed a natural, physical, and economic division of the State from the viewpoint of over-all development of natural resources, and conflict between the haves and have-nots, the area of origin of water supplies and the areas of water deficiency. The fact that some counties like Fresno and Merced were both haves and have-nots, did not simplify the problem. The thinly populated and undeveloped counties having the water were inevitably aligned against the urban and more intensively cultivated agricultural areas which need water. The engineers responsible for the coordinated plans realized that dangerous results would follow from uncontrolled construction of state-wide projects under the benign influence of the constitutional amendment requiring beneficial use without waste to justify right to use. Their plans and reports all provided for the taking of only surplus water or excess waters of the Sacramento River system for use elsewhere and mentioned the necessity for protecting the finance of the present and future needs of lands lying along the streams, both in No. 9, Division of Engineering, Department of Public Works in 1925, Page 18.

In 1931 the Legislature enacted, as a part of the statute, giving the Department of Finance power to file applications for appropriation of water, that no priority acquired by the Department of Finance under its filings should be released or assigned which will in the judgment of the Department of Finance deprive

the county in which the appropriated water originates of any such water necessary for the development of the county. Water Code Section 10,505.

The Central Valley Project Act of 1933 expressly provided that in constructing the project, no watershed or area in which water originates, or any area immediately adjacent thereto, which can conveniently be supplied with water therefrom, shall be deprived directly or indirectly of the prior right to all of said water reasonably required to adequately supply the beneficial needs of said watershed or area, or any of the inhabitants or property owners therein. This statute has been amended to apply to all works, including the Central Valley plan, Water Code Section 11,460. Since the Reclamation Act of 1902 requires the Bureau of Reclamation in constructing projects to comply with state laws, the United States is equally bound by this statute, except in projects which are purely flood control and have no relation to the Central Valleys project.

The third statute was also a part of the Central Valley Project Act and has been incorporated in the Water Code as Section 11,463. It provides that in the construction and operation of any project, no exchange of the water of any watershed or area may be made unless the requirements of the area are first and at all times met and satisfied to the extent that they would have been met were the exchanges not made and that no right to the use of water shall be gained or lost by the exchange. Section 11,128 of the Water Code extended the limitations prescribed in Sections 11,460 and 11,463 to any agency of the State or Federal Government which shall undertake construction or operation of the project or

any additional units which are consistent with and which may be constructed and operated on a part of the project. For example, the courts have gone far to determine and settle water rights by reaching a practical, physical solution of controversies in the light of complete engineering and factual information. In any case involving water rights, the court may call upon the Division of Water Resources to investigate and report on any physical fact. The Division may also be appointed referee to take testimony and to determine any issue in the action. The courts, therefore, have available all of the studies, investigations, reports, factual information and technical and expert advice of a corps of competent engineers specializing in water rights. Water Code Section 2000. This power to reach a physical solution of a physical situation is a well recognized power of courts of equity and should be operative in construing and applying these statutes. No one man has a monopoly on the interpretation of statutes and many a statute has become a new and invigorated expression of legislative intent through the able interpretation of a court in the possession of full factual knowledge. Some recognition should have been given to this therapeutic power. The theory of these area of origin statutes is sound and can neither be denied nor destroyed. It was recognized by the engineers, lawyers, legislators and citizens who were responsible for all California water plans. Only by preserving the future of the watersheds and their surrounding areas can a coordinated water plan function without loss to the State. Fundamentally, only surplus public water can be taken away from an area without destroying its future. It would do little service to the future of the State to develop

distant areas at great expense while paralyzing development in the area in which the water originates which can most economically use it.

Another serious political effect of a misunderstanding of these statutes is their use by the proponents of one water project to attack another. We are at present in a pitched battle between proponents of the San Luis Project and those of the Feather River Project. Involved in these disputes is a contest between the supporters of the State Division of Water Resources and those of the Bureau of Reclamation; those who favor state ownership and control and those who favor Federal ownership and control; those who favor Federal construction and ownership and State control. An example of this political block-busting is that the claim of the proponents of the San Luis Project that it is free from the County of Origin restrictions, while the Feather River Project is completely hamstrung by them. The fact is, that the water for the San Luis Project will all come from Sacramento and Trinity River systems and all subject to County of Origin rights, in fact a large part of it will come from the Feather River itself. The two systems are not mutually exclusive. Both must be built and they must be integrated to the San Luis Project so that the San Luis Project can be used as effectively as possible to handle Feather River water. The only real basis for conflict between the two is the time factor. The pity is that a political hassle which will delay the prompt development and use of California's overall water supply has arisen which has been attributed to the affect of the area of origin statutes when it is a simple battle over the dollars and cents of water supply. No one seriously

objects to the principle that counties of origin should have their future development protected, but many people feel that the rules will be unfairly applied to defeat any use of surplus water by other areas. There's no present ground for that belief.

There have been some suggestions for modification of the absolute priority given to areas of origin. Twice bills have been passed by both Houses, or one House of the Legislature, restricting the right of a county of origin to 15% of all water appropriated for export. These are not now being pressed. It is suggested that the area of origin be allowed its ultimate needs but not to exceed the natural flow of the stream, thus all additions to the total run-off through conservation and storage would be available for export because they would be produced by the project.

It is claimed that a constitutional provision should be adopted by the people of the State providing that no use to future use of water can be preserved for any area of the State or any water user and that all water should be put to immediate beneficial use in the area which can most effectively use it.

It is proposed that a new, purely contractual basis of water rights be adopted in which all water developed by the State conservation projects may be used only under utility contracts with the State, subject to amendment by the State.

A constitutional amendment is proposed stating the area of origin rule and creating a State Water Board to first (a) declare and describe areas of origin; (b) declare and describe areas of deficiency; (c) provide for a present allocation of all water between the two and (d) establish the legality of permanent contracts between the State and the water users.

All of these proposals appear to me to be either unrealistic; politically impossible of accomplishment, or less effective than our present system. The present rules permit the immediate use of all available surplus water by anyone who can use it at the required cost. The courts provide a method by which, after thorough investigation in a litigated case, a court can make a reasonable, physical solution of the problem and provide a method of present use of the water with periodic future re-examination and determination as conditions change. And he quotes here: "Pasadena vs. Alhambra, 23, California. The addition of a separate hearing before the Division of Water Resources will only cause delay because its proceedings are slow and because its determination is subject to review by the courts in any event. By the use of intelligent negotiations between the areas, careful planning of projects and judicious use of the courts for solutions of problems which yield to no other treatment, we should be able to plan and execute projects which will put to effective use all of the water supply of the State under the present statutes and theories of water rights.

This is a summary of the thinking of our area on the theory of County of Origin and as I pointed out to begin with, we have experienced practically every one of the various factors that are involved in the whole controversy.

Now, the first witness this morning on the County of Origin proposition is going to be Mr. Harvey Banks, speaking for the Division, as Engineer in charge, and he will introduce Henry Holsinger, Principal Attorney.

HARVEY BANKS, ENGINEER IN CHARGE, STATE DIVISION OF WATER RESOURCES: Thank you Mr. Chairman and members of the Committee. With your permission, the members of the staff of the Division and I have prepared a statement which I would like to read into the record at this time. May I say that we appreciate very much the opportunity to appear before your Committee in response to your invitation and to present our views and our recommendations as to a possible means of solution of this very vital problem.

The major water problem in California is not so much a problem of water shortage when the total available supply is considered; but is rather a problem of retaining and redistributing surplus flows to satisfy urgently needed supplemental requirements in all areas. The problem involves a practical re-regulation of seasonal runoff in the "areas of origin" from the months of abundance to the months of local deficiency, so as to fully satisfy the reasonable water requirements of those origin areas. At the same time, the problem involves a physical transmission of the surplus flows, in excess of full requirements of origin areas, to the "areas of deficiency". These imported supplemental sources of high quality water, together with the limited local sources in deficient areas, will, in our view, afford full, firm supplies to satisfy the present and ultimate requirements of those areas.

In actuality, areas of deficiency comprise not only those areas of the State wherein the total annual water crop is deficient to supply local needs, but also those areas of origin where the in-seasonal as well as seasonal occurrences of runoff are unfavorable to fully supply the needs for each month of the

year without further conservation and regulation works. Furthermore, the areas of origin cannot be limited to any particular region of the State since each water-shed within the State, in reality, contains an area of origin and is entitled to protection as such. An adequate solution of the problem should therefore embrace the State as a whole with due regard to existing vested rights to the use of water.

Aspects of the problem which we believe should be considered in arriving at a satisfactory solution are set forth as follows:

(1) The present protection afforded by law to counties of origin is contained in Sections 10505 and 11460 of the Water Code, known respectively as the County of Origin Act and the Watershed Protection Law. The County of Origin Act is effective only on those streams upon which the State Department of Finance has filed applications for unappropriated water. The streams on which these applications have been filed are largely those along the northern and eastern sides of the Sacramento-San Joaquin Valley as shown on the accompanying map. The Watershed Protection Law applies only to the operator of the Central Valley Project. This law was designed to give protection to the areas where water originates as delineated in plans for the Central Valley Project.

Both measures have in the past served a useful purpose but due to administrative and legal difficulties, they are inadequate to provide the required protection, particularly when the problem is considered from the standpoint of the State as a whole.

Furthermore, the State Attorney General has recently

issued opinions in which he upheld the validity of these statutes, but conceded in the absence of a court decision so declaring, doubt will persist in regard thereto. Firm assurance is required to both the areas of origin and the areas of deficiency, that their reasonable requirements will be met as promptly as possible. To this end, both these laws, County of Origin Act and Watershed Protection Law, should be revised, clarified, and broadened so as to be of general application and to facilitate the orderly, efficient, and equitable development and distribution of the State's water resources. Further consideration of the problem may indicate for one reason or another the need for a constitutional amendment.

(2) Bulletin No. 2, entitled "Water Utilization and Requirements of California" of the State Water Resources Board, presents the consumptive water requirements of the State on a basin-wide basis. There should be a more detailed determination made of the present and ultimate supplemental water requirements of all the areas of the State to provide a basis for allocation and distribution of the State's water resources when considering specific projects. A start has been made in the Northeastern Counties Investigation, now in progress, and the various special investigations, completed and under way, under direction of the State Water Resources Board. This should be expanded to cover the entire State. In connection with such studies there should be full opportunity for all interested parties to present their views and to be continuously advised of the progress of the work. Without complete factual data in this regard, including necessary basic research as to water requirements for various types of culture, it is impossible to define with any degree of exactitude the amounts

of water that are or will be actually needed.

(3) A determination should be made of the extent of usage under existing rights in some detail to the end that a reasonable accurate estimate of the amount of remaining unappropriated water may be made. Such a determination of the amount of water required to satisfy vested rights need be made only to the extent of the totals involved by reaches of the various stream systems.

(4) The California Water Plan currently being prepared under the direction of the State Water Resources Board, when completed, should be immediately reviewed by the Legislature and consideration given to its adoption by statutes as the general plan for the development and distribution of water to meet the reasonable requirements of all areas of the State including both areas of origin and areas of deficiency. Such action would make it the master plan for the development of the water resources of the State, to which all future water development projects should be required to conform, within reasonable limits, however, as may be determined as developments progress. It is believed that planning should be extended to include local projects needed to supply water for the areas of origin and should be a continuing process to keep abreast of changing conditions.

(5) To carry out the large scale developments that will be necessary and which will have to be integrated in operation, any State agency that is charged with responsibilities for constructing and operating projects to supply the water needs of the State would have the necessary permits for unappropriated water granted to it upon authorization of a special project, to be followed at the proper time by issuance of licenses. It is

contemplated that these water rights would be held in trust for the beneficiaries of the waters thus developed, who would acquire, by contract with the agency, a definite right to receive a water supply described only as to quantity and quality but without specification as to source.

Specific Recommendations

(a) Legislation should be promptly enacted directing the State Engineer to withdraw from appropriation as much of the presently unappropriated waters, based upon present available information, as may be required to supply the reasonable needs for full development of the resources and potentialities of the areas of origin. The amounts of these withdrawals should be altered as more complete information is developed as to the requirements of the areas of origin. The withdrawn waters should be released, as necessary, for developments to supply the needs of the areas of origin.

(b) The California Water Plan, now nearing completion, including the developments proposed to supply areas of origin, should be adopted as the master plan for the coordinated development of the State's unappropriated waters for the benefit of all areas of the State.

(c) Legislation should be enacted directing the State Engineer to withdraw, from time to time, from appropriation as much of the remaining unappropriated waters of the State (after areas of origin have been provided for) as may be necessary to provide a reasonable supply to all areas of deficiency as soon as plans are formulated for the supplying of water to these areas.

These withdrawn waters should be released only as necessary to implement (1) the master California Water Plan, (2) projects not in conflict with the master plan, or (3) other projects which will reasonably accomplish the same objective.

(d) Determination of supplemental water requirements for the full development of the resources and potentialities of both the areas of origin and the areas of deficiency should be completed for the entire State.

(e) An ascertainment should be made of the amount of unappropriated water now remaining available in all areas of the State.

(f) A careful review should be made to ascertain whether in all instances existing legislation affecting water rights is adequate in view of present and prospective developments in this field.

(g) The State should initiate an immediate program of development to supply supplemental water to areas of deficiency where critical situations exist and to those areas of origin which are now in need of additional water, without awaiting final determination of all the various factors involved in the State's major water problems. Only by such means can the imperative needs of the people of the State be supplied. A continuing program of construction will be required to supply our increasing water requirements as they develop, including construction of works to serve local areas of origin. This State program should not preclude efforts to secure the assistance and cooperation of the Federal Government in those projects where there is a Federal interest. In such cases, the State and Federal plans should be

integrated to achieve the over-all objective.

If the Legislature should determine that the Feather River Project, already authorized in part, is to be constructed as the initial unit of the California Water Plan, it is our opinion, based on extensive studies, that there exists ample unappropriated water for the needs of this project, including the water needs for full development of the Upper Feather River Service Area. This water is already covered by Department of Finance applications.

The Division of Water Resources will be pleased to render to the Committee every possible assistance in the Committee's consideration of these problems.

That concludes our presentation, Mr. Hansen.

CHAIRMAN HANSEN: Any questions by the Committee?

Mrs. Davis?

ASSEMBLYMAN DAVIS: Let's take for a moment, the upper Feather Basin. Do you feel at the present time there is adequate information relative to the present and ultimate area up above the Feather River Project?

MR. BANKS: Yes, Mrs. Davis. As a result of our last report, I believe that to initiate a program of water supply for that area, there does, at this time, exist sufficient information on that. You will recall, I believe, that the planning I spoke of should be a continuing process and based upon that continuing planning and study of the water requirements of the State. As they develop, it is quite possible that we may have to revise our estimates, but we have looked into the future as best we can at this time.

ASSEMBLYMAN DAVIS: I would suggest that Mr. Neuman and

yourself converse a little bit about this situation because I have asked Mr. Neuman this specific question and he seems to feel that there is needed additional engineering data, plus a great deal of financial data, that have not been brought forth. So it would seem to me that some funds are necessary for a financial feasibility study to be made of the recommended projects in the Upper Feather Basin.

MR. BANKS: Mrs. Davis, my statement applied only to information as to water requirements. That is quite correct. The planning for development of local projects, that is, more or less the preliminary engineering design, while we have done some of that for the Upper Feather River Service Area, under the Northeastern Counties Investigation, nonetheless, because that investigation by language of the statute was slanted and directed toward the determination of water requirements rather than the design of projects. Because of that there still exists some further need for engineering investigation of the feasibility of specific projects.

ASSEMBLYMAN DAVIS: Then, actually, would you agree with me that if money would have been appropriated at the last legislative session for a study like that to have been made, we actually would be way ahead on the over-all State Water Plan?

MR. BANKS: We believe that this planning should be extended to cover specific projects designed to satisfy the needs of the areas of origin.

ASSEMBLYMAN DAVIS: What is your personal opinion relative to the authorization of that entire Upper Basin as a unit of the Feather River Project, if it becomes a reality?

MR. BANKS: I believe that should be done.

ASSEMBLYMAN DAVIS: Do you feel that it would be of benefit to the Feather River Dam proper, if the upper area was developed from a financial standpoint?

MR. BANKS: My feeling is that all areas of the State, to the maximum extent we can, should be provided the water which will be needed for their development. The needs of the upper area for projects to supply water, while it should be tied to the authorization of the project as a whole, nonetheless, should stand on their own merits as being needed to satisfy the water requirements of that Upper Feather River Service area.

ASSEMBLYMAN DAVIS: Well, that has been proven in your studies that those requirements are necessary. So, then, if we appropriate any money for the purchase of the Feather River Dam site, then we should also, wouldn't you say, appropriate sufficient money for the feasible reservoir sites in the Upper Feather Basin at the same time?

MR. BANKS: Yes. That, I think, is covered in my statement, in general terms.

ASSEMBLYMAN MILLER: Mr. Banks, in your first recommendation you asked that legislation be promptly enacted directing the State Engineer to withdraw from appropriations as much of the presently unappropriated waters as may be required and so forth. It is my understanding that that authority existed now with the present filings of the Director of Finance. How would this other additional legislation add to this power to file on those unappropriated waters?

MR. BANKS: I would like to point out two things in

connection with this. The power and directive to the Department of Finance to file applications only extends to applications in furtherance of general and coordinated plans for development. In many of these areas there does not exist at the present time, general and coordinated plans for the development of the Upper Service Areas. That is not true all over, but it is true in many areas of the State. Furthermore, after some years of experience with the Department of Finance filings, and we have worked very closely may I add with the Director of Finance on this, there are many administrative difficulties in attempting to administer water rights under those. Furthermore the language of the law is quite indefinite. You see, the protection afforded the counties of origin under the Department of Finance filing is actually a prohibition. It merely says that the Director of Finance cannot assign or release from priority any water required for that. By the indefiniteness of that language, it has proven extremely difficult to work with those filings. We do not advocate that those filings be abolished. They serve a very useful purpose as they are, but we do recommend for those areas upon which there are no State filings, that this other procedure be adopted as being much more feasible administratively and if the adequate legislation is adopted, can be implemented immediately by a withdrawal by the State Engineer of the water based upon the information that he has. As I say, it is not covered in here, but my view on that would be that the withdrawal would be where there does not exist detailed data at this time. The withdrawal would be somewhat ample to cover anticipated contingencies.

ASSEMBLYMAN MILLER: My understanding is that there are

many waters that filings have not been made upon at the present time that may be considered by more detailed study as surplus waters, that haven't been yet filed on in the statute. As it exists now, it is not broad enough to permit filings on those. Is that correct?

MR. BANKS: That's right and as I say, the mechanism of those filings is very difficult administratively. To point out, they are made by the Director of Finance. The Director of Finance does not have a staff to consider those. He must depend upon us.

ASSEMBLYMAN MILLER: Do you believe your offices are adequately equipped to make these filings, rather than the Department of Finance?

MR. BANKS: Historically, these filings have been made upon the advice of our office.

ASSEMBLYMAN MILLER: But in your recommendations, you seek that you make these filings directly, rather than through the Department of Finance?

MR. BANKS: Not the filing, Mr. Miller, a withdrawal from further appropriation shall we say, for export, or rather those waters which are determined to be needed for the full development of the resources and potentialities of the areas of origin would be withdrawn from further appropriation, except for appropriation in furtherance of projects designed to serve those areas.

ASSEMBLYMAN LINDSAY: Mr. Banks, on this map that you furnished us, have any of these filings been released by the Department of Finance?

MR. BANKS: The filings on Friant Dam have been released. The filings at Friant on the San Joaquin and at Shasta on the

Sacramento have been assigned to the U. S. Bureau of Reclamation. We have requests for many others and I believe there are a few other minor ones which have been assigned. If you want specific information on that, Mr. Gianelli who is thoroughly familiar with it is here, if you wish detailed information.

ASSEMBLYMAN LINDSAY: The two major filings that have been assigned now, or released, are the ones on Friant and the one on Shasta, but the Shasta has a provision in it that keeps water for the Upper Pit River watershed, does it not?

MR. BANKS: That's right.

ASSEMBLYMAN LINDSAY: The reserve makes a reservation for them?

MR. BANKS: That is correct. There is no reservation in the Friant filings.

ASSEMBLYMAN LINDSAY: No reservation in Friant?

MR. BANKS: No.

ASSEMBLYMAN LINDSAY: And there are no other major ones that have been released to this date, not even Folsom?

MR. BANKS: Folsom has not been released as yet, or assigned. That, Mr. Lindsay, is one of the matters that will be taken up in connection with water rights.

ASSEMBLYMAN BELOTTI: Mr. Banks, I noticed here on your map that it doesn't show any filings at all up in Mendocino or Humboldt Counties or Del Norte?

MR. BANKS: That is correct.

ASSEMBLYMAN BELOTTI: Am I to assume from that there have been no filings made?

MR. BANKS: That is correct. That is State Department of

Finance filings, Mr. Belotti. This does not, of course, purport to cover all filings, this is merely

ASSEMBLYMAN BELOTTI: These are the ones, for instance, that where there is no filing such as indicated here, then by your recommendation they are presumed to be unappropriated waters. Is that not correct?

MR. BANKS: I did not intend to imply such a presumption.

ASSEMBLYMAN BELOTTI: It could be then, even though it doesn't show here that there has been any filings on any of those waters in those counties?

MR. BANKS: Oh, there are many. There are many filings on nearly all the streams of the State, over and above the State Department of Finance filing.

ASSEMBLYMAN BELOTTI: What I'm trying to find out for my own interest and the interest of the people up there is that if they have not filed on certain water rights, then can you, the Water Resources Board, or the Department of Finance, make recommendations that there are waters, a certain amount of water that is unappropriated and therefore ways and means should be found to once and for all make provisions and perhaps develop projects that will divert those waters?

MR. BANKS: Mr. Belotti, with respect to that, in many of the Northcoast streams the present hydrologic data are sufficient to conclusively show, that there does exist surplus waters there over and above anything that can be reasonably used within those areas. Let me assure you that in our development of plans, under the California Water Plan, it has never been at any time contemplated that from any stream would there be exported water

which is reasonably needed within the area of origin of that stream, unless at the same time, there was contemplated a local project to supply that need. Now, it is possible, and I can't recall any particular one off-hand, but it might be possible that diverting out of this stream for export would be the economical thing to do and to develop another stream and bring water in. I can't recall of any particular instance of that, but I don't want to close off that remote possibility. In our planning we have always considered that the needs of the areas of origin must be taken into account.

ASSEMBLYMAN BELOTTI: In other words, it will not be necessary at the present time, with the status of things as they now are, for the people there to immediately proceed or go ahead to properly file on certain water rights in order to protect themselves?

MR. BANKS: If some legislation such as we have indicated here is not enacted to protect and extend protection to the counties of origin, then I believe the counties of origin which are not covered by the state filings should give very serious thought to what position they find themselves in.

ASSEMBLYMAN BELOTTI: Mr. Berry stated here in answer to one of my questions yesterday that he felt that the laws at present are not adequate to protect the interests of the people of that area.

MR. BANKS: Mr. Belotti, I concur in that statement absolutely.

ASSEMBLYMAN BELOTTI: Now you feel that your recommendations as proposed here would give them the protection they should have?

MR. BANKS: These recommendations are designed for that specific purpose.

ASSEMBLYMAN BELOTTI: Could the information be made available through your office as to those filings that are on record on the water, that is the appropriated water up there?

MR. BANKS: We can furnish you that information, Mr. Belotti, within a day or so. It would take a little time to tabulate it, but it is available, that is as far as rights initiated since 1941, the date of the Water Commission Act. One of the unknowns in the problem of administration of water rights is that the Division has no complete record of water rights acquired or initiated prior to 1914, since there was no provision for filing with a State agency for such rights.

ASSEMBLYMAN BELOTTI: Is your office cooperating with the Bureau of Reclamation and the present studies that are being carried on up there on water resources?

MR. BANKS: Yes, we are.

ASSEMBLYMAN BELOTTI: You don't think that it would be advisable, or let's say necessary, to make another study of the survey comprising let's say the First Assembly District just from the State standpoint, so that we would have from the State a report telling us exactly what our water resources are and perhaps tie in other natural resources? You think you have enough information now that I could have say for the next Budget Session without another survey being made up there?

MR. BANKS: Within the area covered by the Northeast Counties Investigation, fifteen counties, covered by that, within the area covered by the Klamath River Investigation, I believe that

the results of those studies will be adequate for the immediate needs. Now, you will note that I have recommended in here that same type of study be made for the entire State. We have throughout the State many special investigations that have been made, which have developed rather detailed information. We have rather detailed information in the San Francisco Bay area. We have quite detailed information in the Los Angeles Metropolitan area, but there exists many areas of the state in which there have been no detailed studies made such as are necessary to administer the waters of the State. We believe firmly that that should be done.

ASSEMBLYMAN BELOTTI: I have requested that if any study should be made in the State, that one similar to the one that is being made at the Upper River Basin, at the request of Mrs. Davis, might be advisable and I had so requested. Apparently, you have sufficient information so that will not be desirable.

MR. BANKS: Mr. Belotti, if you have an opportunity, at your convenience, we'll be very happy to discuss with you exactly what we have in your area so that you can form your plans upon that.

ASSEMBLYMAN BELOTTI: Thank you.

CHAIRMAN HANSEN: I should like to acknowledge the presence of Senator Ed Johnson. We would be glad to have you come up here, Senator, if you'd care to? Mr. McGee, do you have a question?

ASSEMBLYMAN MCGEE: Mr. Banks, I seek only enlightenment, please. As I understand it, the Division of Water Resources, is chargeable under the Constitution and the laws, with holding all of the water rights of this State and people file claims with the Division of Water Resources for some of that water, such as the

Department of Finance. The Department of Finance files a claim with the Division of Water Resources? Is that right?

MR. BANKS: Yes, that is right.

ASSEMBLYMAN McGEE: The filing is merely a claim for some water for some future use, made by the Department of Finance, with the Division of Water Resources. Is that right?

MR. BANKS: That is correct.

ASSEMBLYMAN McGEE: You say that prior to 1914 you have no record of filings?

MR. BANKS: No.

ASSEMBLYMAN McGEE: With whom were filing made prior to 1914?

MR. BANKS: From 1872 to 1914, an appropriative right could be initiated either by posting a notice and actual use of water from which time the priority dated as of the date of use, or a notice could be filed in the County Recorder, in which the diversion was to be made, and then the priority dated from the date of recording of that notice. The Water Commission Act, under which it and its subsequent amendments went into effect, was dated December 19, 1914. We do, of course, have some knowledge of those prior rights, but it is not extensive.

ASSEMBLYMAN McGEE: Did you want to say something, Mr. Holsinger?

MR. HENRY HOLSINGER, ATTORNEY, DIVISION OF WATER RESOURCES: I just wanted to point out that prior to the Water Commission Act, the priority might be acquired by two methods; either by posting and recording of the notice in which event the priority would date from the date of that notice, or from actually

taking and using the water in which event a priority would date from the date of application to beneficial use.

ASSEMBLYMAN McGEE: Since that time, and up to today, anybody who files on water in this State files with the Division of Water Resources?

MR. BANKS: That is correct.

ASSEMBLYMAN McGEE: Including the Department of Finance?

MR. BANKS: That is correct.

ASSEMBLYMAN McGEE: And including the Federal Government?

MR. BANKS: That is correct.

ASSEMBLYMAN McGEE: If anybody files on any water with the Division today, except the Department of Finance, that filing claim is subject to the due diligence of law?

MR. BANKS: Yes, sir.

ASSEMBLYMAN McGEE: But the Department of Finance's filings are not subject to the due diligence law, are they?

MR. BANKS: There's one qualification to that, Mr. McGee, in that the relief from diligence has to be renewed at periodic intervals.

ASSEMBLYMAN McGEE: Now I'll come to that in a minute. But under the law, when the Department of Finance makes a filing and holds it for future use, the Department of Finance is not subject to due diligence, is it?

MR. BANKS: I must qualify my answer, because the relief from diligence must be renewed periodically by the Legislature. It is not a blanket relief for all times.

ASSEMBLYMAN McGEE: It is not?

MR. BANKS: It is not.

ASSEMBLYMAN McGEE: When the assignment is made from the Department of Finance to somebody else, either the Federal Government or a private water user or the Water Projects Authority, then the due diligence provisions are immediately reinstated?

MR. BANKS: Yes.

ASSEMBLYMAN McGEE: So that whoever gets the assignment from the Department of Finance must immediately comply with the due diligence provisions. Is that correct?

MR. BANKS: That's correct.

ASSEMBLYMAN McGEE: But while the Department of Finance is holding that filing, it, the Department, is not subject to the provisions?

MR. BANKS: That is correct.

ASSEMBLYMAN McGEE: That's what I wanted to clarify. Now, that applies to anybody who files for water with you, the Division of Water Resources. They are subject to due diligence, aren't they?

MR. BANKS: Yes, sir, with the exception of the Department of Finance.

ASSEMBLYMAN McGEE: Now, when the Central Valley Project was being built, the Department of Finance assigned the filings that they held for that water to the Federal Government.

MR. BANKS: That is correct. That is, those filings at Friant on the San Joaquin and those at Shasta on the Sacramento.

ASSEMBLYMAN McGEE: Those filings were assigned to the Federal Government and the provision of due diligence immediately came into play?

MR. BANKS: That is correct.

ASSEMBLYMAN McGEE: Now, in regard to the Feather River

Project, first of all, I would like you to enlighten me on this. To what extent must this state go back to Washington and seek a license to build a dam? I know we had to do it to get to build the Feather River Dam and I'd like to ask you now has that license been issued yet?

MR. BANKS: The application has been submitted for a Federal Power Commission license, but

ASSEMBLYMAN McGEE: You're working on that now?

MR. BANKS: Well, we were when we were actively engaged in planning for the Feather River Project.

ASSEMBLYMAN McGEE: Now, for instance, do we need a similar license for the San Luis Dam?

MR. BANKS: No, there are no power features, so no license is involved there.

ASSEMBLYMAN McGEE: If the filings held by the Department of Finance are not subject to the requirements of due diligence and those filings are,....the Department of Finance is prohibited by the statute from assigning them without the complete consideration of the areas of origin, and there's no due diligence required, why then are not the areas of origin amply protected by the existing law?

MR. BANKS: In those areas which are covered by adequate Department of Finance filings, yes, they are afforded a good measure of protection. But I would call to your attention, as Mr. Belotti pointed out, that the Department of Finance filings do not blanket the entire State.

ASSEMBLYMAN McGEE: Well, could they? Could the Department of Finance go into a river and file, say the Eel or the Mad, and

pick up by that filing all water not filed upon as of that date?

MR. BANKS: Where there exists a general coordinated plan, yes. It could be done.

ASSEMBLYMAN McGEE: Now, what do you mean where there exists a general coordinated plan?

MR. BANKS: May I read the language of the law so that we're very clear?

ASSEMBLYMAN McGEE: Cite me the section and I'll read it myself unless the other members want to hear it.

MR. BANKS: 10,500.

ASSEMBLYMAN McGEE: That's your County of Origin Statutes?

MR. BANKS: That's the County of Origin Act.

ASSEMBLYMAN McGEE: I don't see anything in that....that prevents the Department of Finance from making a filing unless there is a general coordinated plan for that area.

MR. BANKS: "The Department of Finance shall make and file applications for any water which in its judgment is or may be required in the development and completion of the whole or any part of a general or coordinated plan looking toward the development, utilization or conservation of the water resources of the State." Section 10,500.

ASSEMBLYMAN McGEE: That, as I read it, doesn't say that you must wait until that plan is in existence or that the Department must wait until that plan is in existence before it can make the filing. Does it?

MR. BANKS: Well, that has been the interpretation placed upon that. That they make and file applications in furtherance of these general and coordinated plans, which would imply then that

there is a general and coordinated plan for which they make the filings.

ASSEMBLYMAN McGEE: And it is there where you, the Division of Water Resources, are working on a general and coordinated plan and at some time or other will make a recommendation to the Department of Finance that it does make a filing on say the Mad or the Eel Rivers. Does Finance wait, usually, for your recommendation to make that filing?

MR. BANKS: We have a very close working arrangement with the Department of Finance on both the filing of applications and the development of data and recommendations upon which they can base the release. Part of the administrative difficulty in acting under this is the two agencies involved and the coordination that is necessary and the fact that we must develop the information relative to assignment at a public hearing before the applications are completed. Then they're completed and go back again to a public hearing before the permit can be issued. It's a cumbersome process to put it bluntly.

ASSEMBLYMAN McGEE: One last question. What is the meaning in your opinion of that language "or areas adjacent thereto"?

MR. BANKS: That has never been interpreted, of course, but speaking as an engineer I will give my opinion, not as a lawyer believe me, Mr. McGee. For practical purposes you must consider those as areas which can be economically and efficiently served with water from a particular source. That's purely from an engineering interpretation of the physical situation.

ASSEMBLYMAN McGEE: You mean then, engineeringly, that although it may not be actually within the drainage area itself,

because of a ridge of hills or something, it might be in another drainage basin but could be more conveniently and adequately serviced from the particular drainage basin under consideration?

MR. HOLSINGER: And immediately adjacent to it....

ASSEMBLYMAN McGEE: And immediately adjacent.....would that mean contiguous to, do you think?

MR. HOLSINGER: It seems to imply that, yes.

ASSEMBLYMAN McGEE: The contiguity....

MR. HOLSINGER: The language is very general and nobody knows exactly what it means.

ASSEMBLYMAN McGEE: Thank you. Now, if I may pursue this one step further.

CHAIRMAN HANSEN: All right, we want you all to understand this thing because if you don't we're never going to get it solved.

ASSEMBLYMAN McGEE: That's right. I'm learning a little bit more than I ever did before right now. I notice on Page 68 and 69 of the Feather River Report. I refer to the Sierra County Water Resources Board here momentarily.. . They wrote a letter and asked if they were being adequately protected in the Feather River Project as an up-river service area and Mr. Edmondston replied that in his opinion they were and that the present reservations held by the Department of Finance, not yet assigned to the Water Project Authority, although the application has been made by the Water Project Authority for that assignment, and parenthetically may I ask, does that assignment from Finance to the Water Project Authority have to come before the license is issued from Washington?

MR. BANKS: No. Under the language of the Federal Power Commission Act, I believe I quote correctly, the licensee must have

taken steps to acquire water rights. There is no specific requirement in the Federal Power Commission Act, as I remember it. We can get that for you Mr. McGee, if you wish, but I don't think there's a specific requirement in there that they must have completed all of the process for water rights.

ASSEMBLYMAN McGEE: In reply to the proper worry I might say, of the Sierra County Water Resources Board, it was indicated to them that Finance and the Water Resources Board would keep for their ultimate use water necessary to meet the ultimate consumptive use of applied waters. What does that mean,....applied waters?

MR. BANKS: To fully explain that I'll have to go into a little technical detail here.

ASSEMBLYMAN McGEE: While you're doing that go ahead and also include the next thing which is "plus irrecoverable losses from irrigation." If you could explain those two, I'd appreciate it.

MR. BANKS: Well, in the utilization of water in a particular area, the Upper Feather River Service Area for instance, of a given quantity of water diverted for irrigation, some of that water will be consumed by transpiration and evaporation and pass into the atmosphere and will be lost to the stream. A certain proportion, depending upon the irrigation practices, the soil, the crop, and all that sort of thing, will return to the stream. Delayed, true, but it will return. In the development of water, there will be certain losses in reservoir evaporation, for instance. There will be certain evaporation losses from canals and that sort of thing, which we term irrecoverable losses. They're lost to the watershed. Now, there exists in any of these mountain watersheds

what we term non-consumptive requirements for water. The water needed to maintain stream-flow for fish life, for recreational development. The water which is used for power development, those are non-consumptive. While conservation works are necessary to develop those waters, nonetheless, after they have served their purpose, they pass on down stream and are available for re-development, re-diversion, and re-use down stream.

ASSEMBLYMAN McGEE: Well, that explains the non-consumptive, I see that, but what then would be the reservation of water necessary to meet the ultimate consumptive use of applied water?

MR. BANKS: Considering the water available at the Oroville Dam site, what we are concerned with there, from an engineering and a hydrologic standpoint, is the amount of water which will be lost from that watershed by development as it occurs above. That is, merely the evaporation and transpiration losses. Now, those are the only things that decrease the amount of water at the dam. Granted, you may have to develop and divert a considerably greater amount of water in the Upper Feather River Service Area than that which is lost, but the excess diverted, while beneficially used, nonetheless, returns to the stream and is available for use downstream.

ASSEMBLYMAN McGEE: So, you're going to reserve those two and domestic use, which should be done, as well as the water requirements for the development of mineral and timber resources?

MR. BANKS: We envision that water should be made available in the upper areas for the full development of their resources and potentialities.

ASSEMBLYMAN McGEE: Doesn't that include a multitude of

problems in the mineral field alone? Timber it seems to me might be easy but mineral, how do you tell how much water might be needed up in that area for ultimate development of minerals?

MR. BANKS: I'll admit that's a little difficult, Mr. McGee, but it is a technical determination and I think adequate water can be made available. Part of the problem I might add in that sort of thing is in the line of maintenance of quality, too, from the waste products from those. That has to be considered in this overall planning.

ASSEMBLYMAN MCGEE: And in addition, then, maintenance of fish and game and the development of recreational areas?

MR. BANKS: That is right.

ASSEMBLYMAN MCGEE: So, all those things then are today, by law, required to be preserved by the Department of Finance before it can make an assignment of the waters under claim in the Feather River Basin?

MR. BANKS: By implication that is what the law means and that is what we have so interpreted.

ASSEMBLYMAN MCGEE: And all those needs must be met before there is any water available for exportation to an area of need?

MR. BANKS: Well, or a reservation, Mr. McGee. A reservation made in the water rights so that when those needs develop in the upper area that there will be water available to satisfy those needs. The provision of water before export doesn't necessarily mean the provision of physical works to supply that, but rather a reservation of water so that at such time as a given irrigable area shall, we say, goes into irrigated agriculture, that water can be made available to that. Now that may not happen for

twenty, thirty, or forty years.

ASSEMBLYMAN McGEE: When and if it does happen, then who has the authority under existing law, to stop the flow that has been going away as an export and keep it at home in the County of Origin?

MR. BANKS: Once those Department of Finance applications are assigned, then the Department of Finance has lost its jurisdiction and then they come under the jurisdiction of the State Engineer in his powers and duties to administer the water rights of the State.

ASSEMBLYMAN McGEE: So that it would be he, the State Engineer, who at some future date, if the law were not changed, would turn the tap off on the exportable water?

MR. BANKS: We would have to take action to see that the water was made available under that reservation for those upper areas.

ASSEMBLYMAN McGEE: Yes, I see. If the Feather River water, for instance, were being exported to Southern California and fifty or a hundred years from now it was decided by the State Engineer that they needed additional water, for mineral development in that area, or timber, or recreation, then he, under existing law, could turn the tap off.

MR. BANKS: Well, Mr. McGee, may I take just a moment to clarify the basic concept of this. There has never been any intention under the Feather River Project to divert water on a permanent basis or any other basis, actually, because there exists ample unappropriated water for the Upper Feather River Area, as well as what is proposed to be exported. The Feather River Project

did not contemplate at any time interfering with the reasonable needs of the Upper Feather River Service Area. Of course, this is one of the uncertainties of the law in that we have no judicial interpretation of this, but with respect to this withdrawal of water back, once exported, we did not envision taking that water. Perhaps I haven't made myself clear....

ASSEMBLYMAN MCGEE: It's a hypothetical thing clear and simple, isn't it?

MR. BANKS: The amount by which the development of the Upper Feather River Service Area can deplete the natural stream-flow at Oroville Dam site is not great. It is the order with full development of ten, I believe the figure is, from ten to twelve per cent. I can get the figures for you. So if you don't touch that water at all at any time for export there still exists in the Feather River and in the Delta sufficient unappropriated water to satisfy the needs of that project as it envisioned. It's a little difficult I'll admit.

CHAIRMAN HANSEN: We're getting more customers now. We're going to have to recognize each one in turn. Mr. Lindsay, Mrs. Davis, Mr. Weinberger and Mr. Miller have asked to be heard here.

ASSEMBLYMAN LINDSAY: Mrs. Davis would like to ask one question.

CHAIRMAN HANSEN: We'll go on with this list of questions then. Mr. Lindsay, go ahead.

ASSEMBLYMAN LINDSAY: I'll yield to Mrs. Davis, because this is her territory and she has a pertinent question or point she wants to make.

ASSEMBLYMAN DAVIS: Mr. Banks, you say that it would have

been in your discretion, or the Chief Engineer of the Division of Water Resources, to protect the area in the Upper Service Basin, but you did not know what the needs of that area happened to be at that time, did you?

MR. BANKS: Mrs. Davis, we knew enough of the needs in the Upper Feather River Service Area so that we knew that even if we made ample allowance for those, there still existed sufficient unappropriated water for the project. As I say, we had rather granted knowledge. Granted, not to the detail we do now, but we engineers get in the habit of making conservative assumptions, shall we say...

ASSEMBLYMAN DAVIS: Yes, I know you do, but you have no specific facts many times. I noticed that the State Engineer did not recommend to the Department of Finance any specific number of acre feet of water as a reservation for the Upper Basin Area when he asked the Department of Finance to transfer the filings they were holding to the Water Project Authority, did he?

MR. BANKS: In answer to that question, it has been our view that much better protection would be afforded the County of Origin by a general reservation, couched in the language which we used there, of reserving to the Counties of Origin, or the Upper Feather River Service Area, all of the water which it may reasonably need. We felt, in all sincerity, that was a better protection to the Upper Feather River Service Area than would be afforded by a specific figure.

ASSEMBLYMAN DAVIS: All right, but he did not even recommend a general reservation at the time that he asked for the transfer of those filings, did he?

MR. BANKS: I was sure that he did, but to be positive of

that we will be glad to go back into the record and examine that because I'm sure it has always been our full intention to make ample provision for the needs of the Upper Feather Area.

ASSEMBLYMAN DAVIS: Even though he might have made a general reservation request at that time, and should the water be diverted to areas of deficiency down below and that water becomes riparian to the land then how could we bring it back unless we would stress in court or test rather, the opinion that the Attorney General has submitted to us pertaining to these two particular sections?

MR. BANKS: As I told Mr. McGee, it was not our intention to encroach upon that water....

ASSEMBLYMAN DAVIS: I know it was not your intention but there was nothing actually that would guarantee to us definitely except the intent of the State Engineer, right?

MR. BANKS: It could have been written at the Upper Feather River Service Area. I believe it's possible. It's possible such a thing could have been written into the assignment. We, honestly, and in all sincerity, believe that this language which we used in our recommendations to the Department of Finance as to the assignment, we believed fully and firmly that was the protection afforded the Upper Feather River Service Area. A much broader, much more complete protection. Now, it has since developed that possibly a specific reservation may be better considering everything, but to repeat, in all honesty and sincerity that was our belief, that that was the best protection that that area could

ASSEMBLYMAN DAVIS: That might well be, because you had not made a thorough investigation and study there at that time, right?

MR. BANKS: We did not have the detail at that time that we have now.

ASSEMBLYMAN DAVIS: That's right. In your presentation today you recommend that other than where the Department of Finance has filed upon water that a constitutional provision might answer the question as far as the County of Origin because it would give to the State Engineer the privilege to withdraw water. Unless it was specifically written in the constitutional provision that was presented to protect the filings that the Department of Finance now holds, that would void all those filings, would it not?

MR. BANKS: Two points, Mrs. Davis, I did not recommend a constitutional amendment. I recommended study as to the necessity of a constitutional amendment.

ASSEMBLYMAN DAVIS: Well, nevertheless, how do you feel about that?

MR. BANKS: Secondly, I did not recommend that it be the privilege of the State Engineer. I recommended that the Legislature direct the State Engineer to do this.

ASSEMBLYMAN DAVIS: Well you're recommending these things nevertheless, right?

MR. BANKS: Thirdly, it is not my view and I did not recommend that there be any interference in any shape or manner with the existing Department of Finance filings. My recommendation here is based upon what seems to us something that can be done to extend the protection to the Counties of Origin in other areas of the State which they do not have under the present Department of Finance filings, a procedure which is more direct and more administratively workable than the present one, but we do not in any way

believe that the present Department of Finance filings would be disturbed in any way because they have a priority, some of them very early in the.....

ASSEMBLYMAN DAVIS: Then you would recommend that that language would be specifically written into the constitutional provision that might be adopted by the Legislature? Is that what you're saying?

MR. BANKS: I'm only an engineer. Would you mind if I asked Mr. Holsinger to give his personal professional opinion on this? He has had many more years of study of constitutional requirements than I have, so with your permission....

ASSEMBLYMAN DAVIS: Mr. Holsinger, what is your opinion?

MR. HOLSINGER: So far as an amendment to the Constitution is concerned, the statement made is that careful consideration should be given to that.

ASSEMBLYMAN DAVIS: All right. Now let me ask you another thing, Mr. Banks, where you have mentioned, I'm not even going to say that you recommend, but where you have mentioned that the State Engineer has the privilege through a direction from the Legislature of withdrawal of water from the areas not covered by the Department of Finance filings, how would you suggest that the facilities be developed in these service areas financially for these counties to place their water to beneficial use?

MR. BANKS: I'm going to have to pass just a little bit on that question. We have not prepared anything on financing of this thing because we didn't believe it to be within the scope or the agenda here. I will state this. It's my own personal view. Some means must be found to finance not only these large scale

inter-regional transfers of water, but also the projects for the local areas. I have no specific recommendations to make at this time with respect to how that might be done. I only state my conclusions that...and this is a personal one, let me assure you of that, that such means must be found in order that the needs of all areas of the State can be met.

ASSEMBLYMAN DAVIS: Let me ask you one further question, also. At the present time, the Northeastern Survey that is under way will not be completed for quite some time because there were fifteen counties involved. Now, do you feel that it would be a safe measure for the State Legislature to adopt either a constitutional amendment or any new directive that might apply in the present and future law before those studies are completed? Would that be a safeguard? Do you feel that those counties are sufficiently protected now before those studies are completed? In other words, before we make any change whatsoever?

MR. BANKS: In those areas which are covered under State Department of Finance filings, in general....

ASSEMBLYMAN DAVIS: I mean areas that are not.

MR. BANKS: I believe there is some urgency about providing means of protection for these other areas. If I may cite one example: That is the San Luis Obispo County area in the upper Nacimiento River where now all of the unappropriated water has been very largely appropriated in accordance with due process of law. But there remains little, if any, unappropriated water for the upper watershed of the Nacimiento River. Those ranchers up there are very much concerned about it. There were no State filings on the Nacimiento River or in the Salinas River system at all. If

I may conclude, it is my opinion that there is urgency about adopting measures to provide protection to the areas of origin.

ASSEMBLYMAN DAVIS: Evidently then it would be a safe step to assume that the studies for all of those counties should be completed before we can actually state what is surplus water in the State of California in areas that the Department of Finance does not hold filings.

MR. BANKS: We believe that the determination of the unappropriated water is a necessary step. There are streams, let me repeat, there are streams including the Feather River and including certain of the northcoast streams where we are sure beyond a shadow of a doubt that there does exist enough unappropriated water to begin development. But, in order to refine these things we do need to extend these studies to a state-wide basis. In other words, we must proceed in those areas where we have every reason to believe, based upon all the available evidence, that we are not encroaching in any way upon prior rights or the water needed for the development of the areas of origin.

ASSEMBLYMAN LINDSAY: Mr. Banks, are the Department of Finance filings superior to riparian rights on a stream?

MR. BANKS: I do not believe so, Mr. Lindsay, but with your permission I'll ask Mr. Holsinger to answer that.

ASSEMBLYMAN LINDSAY: Are the Department of Finance filings superior to a riparian right on a stream?

MR. HOLSINGER: Oh my, no. No, indeed.

ASSEMBLYMAN LINDSAY: Then you do not lose your riparian right?

MR. HOLSINGER: No, not by virtue of the State filing, no.

ASSEMBLYMAN LINDSAY: Mr. Banks, what percentage of water going into Feather River Reservoir comes out of the North Fork and out of the Middle and South Forks?

MR. BANKS: I do not have that available off hand. I can get it for you. I can't carry these figures in my head.

ASSEMBLYMAN LINDSAY: The North Fork though is largely developed at the present time, is it not? And the water rights have been long established on the North Fork?

MR. BANKS: For power purposes, non-consumptive use.

ASSEMBLYMAN LINDSAY: And that water will be trapped in the Feather River Reservoir?

MR. BANKS: Yes.

ASSEMBLYMAN LINDSAY: The water that is released from Almanor and those lakes down through the Pacific Gas and Electric's hydroelectric system, Buck's Lake and so forth; the use of it has been established and it's going to arrive at Feather River Dam Site. Isn't it?

MR. BANKS: That is correct.

ASSEMBLYMAN LINDSAY: And that flow is in the neighborhood of something more than 3,000 second feet now, regulated flow. Isn't it?

ASSEMBLYMAN DAVIS: Mr. Lindsay, I think Mr. Fairchild made a detailed study in that upper basin and he's in the audience, perhaps he might be able to give us that information.

MR. BANKS: Yes, he might be able to a little better than I.

ASSEMBLYMAN LINDSAY: Mr. Fairchild? Not here, well we'll ask another one then. Isn't it true that the changes in cover type in a large basin such as the Feather may largely determine the amount

of run-off in that area?

MR. BANKS: I wouldn't say largely, Mr. Lindsay. I will say it will have an effect.

ASSEMBLYMAN LINDSAY: Let's be a little bit more specific. We have information that the run-off studies from brush fields, for instance, are practically non-existent.

MR. BANKS: That is right.

ASSEMBLYMAN LINDSAY: But from timberland, that 85% of the run-off water in this State comes from timberland, so that if you lose your timber either through cut-off or through fire, you can establish millions of acres of brush fields up there and your watershed run-off in the Feather River Basin, particularly, where you don't have large areas of bare rock, is going to be seriously affected, if we don't watch our cover type.

MR. BANKS: Yes. I will agree with that. The changing of the cultural type will have effect and I may add that is a problem to determine just how much that effect is. You will notice that in this recommendation I have recommended that there be a research on that specific aspect of this problem.

ASSEMBLYMAN LINDSAY: But you're reasonably certain, as certain as engineers can be, and reasonable people, that there is plenty of water to go ahead with an eight year construction period on the dam believing full well that there is enough water to fill the dam and take care of the upper needs?

MR. BANKS: That is our conclusion.

ASSEMBLYMAN LINDSAY: I wonder if Mr. Fairchild has the figures that we asked for? The percentage, the relative amounts of water is what I asked for between the different forks of the

river because the North Fork is largely developed and is almost out of the picture.

MR. GUY FAIRCHILD, SR. HYDRAULIC ENGINEER, DIVISION OF WATER RESOURCES: As given here in Table 11, Page 54, the North Fork of the Feather River has about 64.8% of the total flow for the Feather River.

ASSEMBLYMAN LINDSAY: Does that include Spanish Creek?

MR. FAIRCHILD: Yes.

ASSEMBLYMAN LINDSAY: The whole drainage into the North Fork?

MR. FAIRCHILD: Yes. Roughly two-thirds of the waterflow of the Feather River originates in the North Fork.

ASSEMBLYMAN LINDSAY: And the Middle Fork and South Fork join before they reach the reservoir, don't they?

MR. FAIRCHILD: Yes, that's right.

ASSEMBLYMAN LINDSAY: The Middle Fork is the drainage area of Sierra Valley, Clover Valley and that area?

MR. FAIRCHILD: Yes, that's right.

ASSEMBLYMAN LINDSAY: And that's the important one as far as up-stream development is concerned?

MR. FAIRCHILD: Yes, and the Middle Fork has about 29% of the total flow.

ASSEMBLYMAN LINDSAY: Roughly about 30%.

MR. FAIRCHILD: Yes, roughly about 30% of the total flow originates in the Middle Fork drainage and I might just say that a good percentage of that originates on the lower Middle Fork of the Feather River, well below its possible use in developing the same areas.

ASSEMBLYMAN LINDSAY: In your studies, am I wrong that if the Sierra Valley country is fully developed and the point of entrance from Sierra Valley into the Middle Fork where it goes together - that probably all of the water above that point would be used anyway?

MR. FAIRCHILD: In our studies we made the assumption that there would be no out-flow of water from Sierra Valley. We assumed that all the upstream water would be used and there would be no return flow or out-flow out of the valley in making our studies of yields of reservoirs downstream.

ASSEMBLYMAN LINDSAY: I think that's an important point for people to know that in the consideration of the Feather River Project, you haven't even considered taking one drop out of the Middle Fork from the point of Sierra Valley up.

MR. FAIRCHILD: Yes. We assumed there would be no flow out of the Middle Fork, out of Sierra Valley.

ASSEMBLYMAN LINDSAY: Now, may I ask Mr. Holsinger this question? In application for the Federal Power license, do you have to go to the Federal Power Commission because there's Federal lands involved, or is it that every hydro-project has to have a Federal Power license?

MR. HOLSINGER: The jurisdiction of the F.P.C. is based (1) on the existence of the project which would affect the navigable streams, and (2) on the basis of that the project would require the utilization of Federal lands, either reserved or otherwise.

ASSEMBLYMAN LINDSAY: Isn't it true that in the Feather River Reservoir site approximately 50% of the area is Federally

owned?

MR. HOLSINGER: I'm not aware of that. Engineers would have to give you that information.

ASSEMBLYMAN LINDSAY: We can assume that a large portion of it is owned and when you are granted a license to develop a power project on this and you have to flood this land, that land is in a sense assigned to you and you do not have to pay for that right of flooding?

MR. HOLSINGER: Yes, that's correct.

ASSEMBLYMAN LINDSAY: It's granted by the Federal Government?

MR. HOLSINGER: Yes, special use is granted.

ASSEMBLYMAN LINDSAY: When we come back I'd like to pursue this consumptive use and diversion use just a little bit. I think there was one point that wasn't quite as clear as I'd like to have you make it, on this applied water. When we're talking about applied water, we mean water that is developed and diverted and put onto land for irrigation?

MR. BANKS: That is correct.

ASSEMBLYMAN LINDSAY: That's applied water. It's put to beneficial use.

MR. BANKS: Yes, sir.

ASSEMBLYMAN LINDSAY: Now, is that considered also applied water when it goes into town's system for domestic use?

MR. BANKS: In our engineering view, yes.

ASSEMBLYMAN LINDSAY: Isn't it true that in a town's domestic system a tremendous percentage of the water comes back into the watershed? It's not a consumptive use.

MR. BANKS: The percentage that returns in the form of either return flow from the irrigation of lawns, gardens, or returns in the form of sewage effluent would be in the order of 50 to 60, or 70%. It depends upon the type of culture within the city. I may say this to quote the magnitude of the figures involved. The sewage return from the Metropolitan area of Los Angeles and the various cities there ranges between 55 and 65% of the total water used in those areas. That will give you an idea of the figure. Now, in addition to that, there is a certain return to the ground water from the irrigation of lawns and gardens within the towns, too.

ASSEMBLYMAN LINDSAY: Then it's true, is it not, that even though fairly large diversion rights or works for beneficial use have to be built and used in these upper basin watersheds? That tremendous amounts of this water approaching 50% of it will actually return to the stream and be available for further diversion and re-use down below?

MR. BANKS: Yes, that is correct. There will be a very large percentage of it, depending upon the type of culture developed, the irrigation practices, and that sort of thing.

ASSEMBLYMAN LINDSAY: When you answered Mrs. Davis' question about the proposals for a general reservation of water for all of these purposes up there, you said that you thought that would be a safer reservation than a specific reservation.

MR. BANKS: That was our view.

ASSEMBLYMAN LINDSAY: The unfortunate truth is I just don't believe that either Mrs. Davis or I or the other people representing the areas of origin are going to satisfy our people on a

general reservation. It's going to have to be specific and if it is going to have to be specific, then we're wasting time with general reservations.

MR. BANKS: If the people of the areas of origin wish specific reservations, those can be given.

ASSEMBLYMAN LINDSAY: I think we have a comparative problem here with the highway situation. When you had general distribution of the monies it didn't work but they had to come down to a specific formula so that no matter how complicated it finally got, everybody knows or can figure out how many dollars and how many dimes they're going to get out of how much income comes in. Then they were satisfied and passed a law. But until we do that with water, until we have some kind of a specific way to determine how much water is going to be reserved, why we're just in trouble.

MR. BANKS: Actually, Mr. Lindsay, my recommendations here are built pretty much around that concept of getting this data where we can make a fairly firm reservation, realizing, as you say, that the people of these upper areas have developed more interest in a specific reservation than in a general reservation.

ASSEMBLYMAN LINDSAY: Do you believe that any release of the water rights should be granted at this time until the State Water Plan is finally finished? This is a tough question because there are big applications before your department.

MR. BANKS: I realize that, only too well, Mr. Lindsay.

ASSEMBLYMAN LINDSAY: But how can we base a state-water plan when we don't know the figures and still give away large blocks of water?

MR. BANKS: That is one reason, of course, that we have

urged the adoption of a master plan as soon as possible, so that these developments can be fitted into that.

ASSEMBLYMAN LINDSAY: Would you recommend that we have a blanket period here where we don't issue any water rights until we can straighten this out?

MR. BANKS: No, I don't believe so, Mr. Lindsay. I feel that that would tend to shall we say stymie development and I think we should go ahead. May I say this? Speaking as acting State Engineer, that in the consideration of water rights matters we are considering the developments proposed under the California Water Plan, but we must act within the framework of the present law as it now exists and our actions must be governed by that. Our view is that there does not exist in the present law authority for us not to act.

ASSEMBLYMAN LINDSAY: Not to act. Now, that's the point I'm making though so that these people in the Legislature can understand that under the present law you in effect must act.

MR. BANKS: We must act. That is correct.

ASSEMBLYMAN LINDSAY: And yet we are faced with a real problem here of applications by cities, by municipalities, by public districts, by private people, and everything else that could seriously affect or even throw completely out of kilter a state-wide plan.

MR. BANKS: In some cases that is true, but the action taken on that, frankly, is a very basic policy decision and we as your technicians, do not feel competent to voice an opinion as to what action should be taken on that particular thing because that's a very basic policy decision.

ASSEMBLYMAN LINDSAY: This is our problem but the situation does exist.

MR. BANKS: It does exist.

ASSEMBLYMAN LINDSAY: One more question. We've heard a lot about this survey that's going on in the counties and the mountain counties survey, but can someone take about three minutes and tell us the basic steps that go into determining what the needs of an area of origin will be?

MR. BANKS: If I may have your permission to call Mr. John Shannon who has been doing the detail on that work?

MR. JOHN SHANNON, LAND & WATER USE SPECIALIST, DIVISION OF WATER RESOURCES: Mr. Lindsay, would you repeat your question please?

ASSEMBLYMAN LINDSAY: Now, Mr. Shannon, I'd like to have you briefly outline to the Committee the things that you do in the field to establish a basis for the ultimate needs of a county, your soil surveys, your ground water surveys and so forth?

MR. SHANNON: In general, the specific aims, criterias, or procedures involved have been designed to show a reasonable pattern of the ultimate land use and four broad delineations are made during the field survey: (1) Potentially irrigable lands; (2) The urban and industrial areas; (3) The irrigable lands best suited to remain under forest management; and (4) The remaining lands that must be considered as non-irrigable from an agricultural standpoint, but may have certain water requirements in connection with wildlife and watershed management problems and recreational activities as well as mining and hydroelectric power potentialities. These other water requirements are determined by

special studies, separate from the land classification survey. Therefore, the land classification field survey to accomplish its objective makes an inventory of the lands, segregations are made in accordance with the four broad delineations as mentioned previously. Since irrigated agriculture has a significant water requirement in relation to the total requirements of the State, I'll devote most of my discussion today to water requirements for that purpose.

During the course of the overall survey, a physical inventory is made of the irrigable lands and these lands are delineated and segregated into various classes which reflect their suitability for irrigation development. This physical inventory does not need to be detailed to the extent that it can be utilized to advise individual farmers on how to lay out irrigation or drainage systems, or to determine fertilizer requirements or other farm management programs. I feel that type of survey is beyond the scope needed for determination of water requirements and such problems should be handled by the Agriculture Extension Service Farm Advisers and by the Soil Conservation Service District programs. Do you want more specific detail into exactly what we accomplish in the field and how we do the work?

CHAIRMAN HANSEN: I think, Mr. Lindsay, if this is a prepared paper it should have been read in its entirety because it's going to lose some of its force here if we jump around in it. Do you want to go ahead with your question and enlarge on your questions at this time, or do you want to have this thing read in its entirety?

ASSEMBLYMAN LINDSAY: I think we ought to file the paper,

but I think it would be well if he would just describe what a field crew does to determine the future needs. You make a land survey to determine your agricultural lands. Isn't that right?

MR. SHANNON: Briefly, our main object in the field is to segregate out the lands in relation to their ultimate potential use, not only for agriculture but also for other purposes. If you want to go into the detail of a land classification, we map in the field on aerial photographs using stereoscopes and we divide the lands into various classes. The major breakdown is in relation to the topographic standpoint, which affects the type of irrigation practice and to some degree the desirability of certain lands to be developed. After making these more or less broad classes as far as topography is concerned, we try to draw into the classifications any specific limitations which might affect the crop pattern that could be developed on these lands, such as depth of soil, rockiness, highwater table conditions, salinity and other factors that are pertinent to the question of the irrigability of the lands. Certain of these physical limitations that we map are more or less permanent, others we feel are transient in nature. Therefore, we try to consider the problem from what the ultimate picture would be. The limitations that are transient we assume that in the ultimate conditions these problems will be solved and these lands would be comparable with a higher class of use.

After having completed the field work in determination of the gross area of land, we not only use our own field mapping but during the process of the field mapping we give consideration and use to the fullest extent all other available data from the soil survey, the University of California, the Soil Conservation Service

surveys, the Bureau of Reclamation surveys, in fact any agency, federal, state or otherwise that have any information we can utilize. We do so, keeping in mind the main objective of our survey which is the determination of water requirements.

ASSEMBLYMAN LINDSAY: What I'm trying to bring out here is that your method of determining the future needs of a County of Origin is a precise method, it isn't a hocus-pocus deal. You have actual measurement that you base this on?

MR. SHANNON: That's right. We're specific in our main objective. The primary objective is the determination of water requirements. No other purpose is considered in our land classifications.

ASSEMBLYMAN LINDSAY: All right. Now, the first thing you do is determine the total area. You know that. It's acres. It's surveyed. Then you have a soil classification so that you can determine those soils which will use water in the future from agriculture or other uses, wildlife, and so forth. You have certain figures. You know what the crop uses are. You know how much the general use of water on rice is and how much is on clover and how much on orchards and so forth, so these things have been water pattern uses for fifty years or more. They're fairly precise. Isn't that right?

MR. SHANNON: We're still giving consideration to those consumptive use....

ASSEMBLYMAN LINDSAY: Oh, we're having local arguments over water use.

MR. SHANNON: Most of the determinations up to the present date have been determined on the Sacramento Valley floor. We're

trying to expand that to the mountainous areas where little data is known as far as water requirements, consumptive use.

ASSEMBLYMAN LINDSAY: You have a fairly specific idea of how much water people use in a city.

MR. SHANNON: Right.

ASSEMBLYMAN LINDSAY: And that's based over the metropolitan uses and everything else, so actually when you come down to it, you do have a real basis for determining what the use will be. Then you go into the water supply of the area, the ground water supply. You actually measure the wells, their flows, and find out whether your water table is falling or rising and so forth. Isn't that right?

MR. SHANNON: That's right.

ASSEMBLYMAN LINDSAY: Then you have your same studies which have been going on for over forty years so you know what your stream flow patterns are. When you come down you can correlate or evaluate your stream flow or your available ground water against the area and its needs and its people. And then on top of that you have records of the water rights that have already been acquired and so you can eliminate those out of the picture.

MR. SHANNON: That could be done. Our study goes only to the point of determining what the ultimate requirements would be and not necessarily to determine how those requirements are to be met.

ASSEMBLYMAN LINDSAY: That's true. But for instance N.I.D. has a lake up here. It has a water right for so many thousand acre feet of that lake. It has already established it and then it can be deducted from the amount of water that can be exported or used

in the area. Isn't that true.

MR. BANKS: May I answer that Mr. Lindsay? So far as the work with Mr. Shannon is concerned with at the moment, that is the determination of the water requirements. Now the second step is, as you say, the determination of the present supplies available to those lands and the amount of water additionally needed over and above the present supply. That's the second step and that is being accomplished. Those plans have been developed in some areas of the State where we have special investigations and that sort of thing.

ASSEMBLYMAN LINDSAY: But too many people have gotten the idea that you go out here and wave a wand and come up with a figure of how much water is going to be required for a County of Origin.

MR. BANKS: You are quite correct. Our estimates are based upon the most thorough study that we can give it within the limitations of the funds available, which is always a limitation. But we do try to make this as engineeringly precise and technically exact as we can make it.

ASSEMBLYMAN LINDSAY: You take into consideration the difference between, as you pointed out, the losses from transpiration, the losses from transporting the water, the seepage and so forth, that you normally find in that area so that there is a difference in the water requirement and the actual consumptive uses of the area.

MR. BANKS: Oh, yes sir, definitely.

ASSEMBLYMAN LINDSAY: Do you also go further and go to our State Division of Forestry and try to evaluate the different uses that may come into water use in an area because of different types of industry? For instance, when your big timber is cut off then

the small stuff will probably go into pulp mills which means large uses of water. Are those things taken into consideration, too?

MR. SHANNON: Certainly, we discuss these problems with Forestry and also the problems connected with fish and wildlife, all of these other problems have been discussed with the various agencies involved.

ASSEMBLYMAN LINDSAY: All I've been trying to do, Mr. Chairman, is to point out that we do have a pretty sound, scientific basis for making these reservations. But still when you come down to it, it's going to be a matter of a quarter of an acre foot per acre and we're going to adjust this into a fixed figure so that the people up there who are living in the area can actually understand it, after you do all of your work.

CHAIRMAN HANSEN: All right, Mr. Lindsay, thank you very much.

ASSEMBLYMAN DAVIS: There's one thing that I would like to clarify as far as Mr. Shannon is concerned.

CHAIRMAN HANSEN: Well, Mrs. Davis, I'm going to have to put you on after a couple of other folks that have been waiting much longer than you have. I want to recognize Senator John Murdy who is in the audience. Be glad to have you come up here and sit with us Senator if you care to. Now, Mr. Weinberger, you've been very patient. You're next.

ASSEMBLYMAN WEINBERGER: I would like to ask Mr. Banks a couple of questions about water rights and the procedures. You speak, Sir, in F on page 5 of your statement that a careful review should be made to ascertain whether in all instances existing legislation affecting water rights is adequate. Now, do you refer

to the procedures of awarding them in that, or do you have any specific legislative proposal in mind? Was that part of the problem that you spoke of in connection with the difficulties that come by reason of having the Department of Finance make the applications and the Division of Water Resources make the decision?

MR. BANKS: That was part of what we had in mind there was to review the present County of Origin Act and the Watershed Protection Act in view of some of the difficulties that have arisen in the administration of those. We did not detail those here because we felt we wanted to keep this brief. That was part of it. Part of it we had in mind was whether or not the existing law and the existing authorities vested in the various agencies here are adequate to accomplish the recommended program.

ASSEMBLYMAN WEINBERGER: Do you mean by that there isn't existing law that authorizes any branch of the State Government to withdraw certain waters from appropriation?

MR. BANKS: There is an implied power, certainly, in the directive to the Department of Finance, in effect, by the mechanism of filing an application to withdraw. Whether the implication carried in the language of that particular portion of the Code is sufficient to cover what we have in mind here, which as I have said, would accomplish the same end but what we feel in a much more simple and direct and administratively feasible.

ASSEMBLYMAN WEINBERGER: What you really would end up with if your recommendation for a withdrawal from appropriation would be that instead of the Department of Finance, the State Engineer would make the filing, since the Legislature would direct him to withdraw. He would, in effect, make the filing and the application

on all of the waters that he withdrew and that they would be taken out of the jurisdiction of the Department of Finance. Wouldn't that be the result?

MR. BANKS: The jurisdiction of the Department of Finance extends only to those waters upon which they have filed. The mechanism which I have recommended here, I presume, could be accomplished by the mechanism of the State Engineer filing an application, although I would question the propriety. What I had in mind is simply a directive from the Legislature to the State Engineer to withdraw waters, based upon the present....

ASSEMBLYMAN WEINBERGER: That's right, but at the present time the Department of Finance files on unappropriated waters....

MR. BANKS: That is right.

ASSEMBLYMAN WEINBERGER:....and this would be directive to the State Engineer to withdraw from unappropriated waters available to the Department of Finance to file upon, so that you would then have the State Engineer, in effect, making the application on those waters that the Legislature asked him to withdraw.

MR. BANKS: That might be put that way. However, let me repeat again that in making these recommendations I had no intent whatsoever to do anything about the existing of Department of Finance filings. Those things are valuable as they now stand because of the priority.

ASSEMBLYMAN WEINBERGER: That's right, but this would be for the future.

MR. BANKS: This would be for an extension of this to cover those other areas of the State which are not now covered by Department of Finance areas. For instance, the North Coastal area, as

Mr. Belotti has pointed out. There are very few. I believe there's a State filing on the Trinity and there's a filing on the East Fork of the Russian and that's the extent of State filings in the North Coastal area.

ASSEMBLYMAN WEINBERGER: Well, this would then be that rather than ask the Department of Finance to go in and file on the areas that the State Engineer feels are necessary to be filed on, the Legislature would direct the State Engineer to do it.

MR. BANKS: I would recommend that it be merely a directive to the State Engineer to allow no more appropriation of these waters, or something along that line.

ASSEMBLYMAN WEINBERGER: Well, no more appropriations so they could be used for State projects.

MR. BANKS: That's right.

ASSEMBLYMAN WEINBERGER: But isn't that the same....

MR. BANKS: Well, not necessarily, not that they could be used for State projects but they could not be appropriated for use outside of these so-called areas of origin. We envision that it may be necessary for the State in some cases to build projects within the areas of origin, but these waters would be withdrawn for the specific purpose of use within....

ASSEMBLYMAN WEINBERGER: They tell them where they are.

MR. BANKS: Yes.

ASSEMBLYMAN WEINBERGER: Well, one other question and then I will be done and others can go on. Does all of this point up or do you feel that in any reorganization of the water agencies that the agency which will have to do with the construction and the planning and the operation and the maintenance should also make the

applications for the water rights that it needs, rather than having that done by the Department of Finance, and not implying any criticism on your part or the Department of Finance, but just as a matter of administration?

MR. BANKS: Before I answer your question, may I clear up something? I have no criticism whatsoever of the Department of Finance, but a machinery has been set up here in these things which is rather cumbersome and administratively difficult to work with. But please don't infer in anything I've said....any criticism whatsoever of the Department of Finance.

ASSEMBLYMAN WEINBERGER: I'm certainly not doing that.

MR. BANKS: With respect to reorganization, I am not prepared today to make any statement whatsoever upon what form the reorganization should take.

ASSEMBLYMAN WEINBERGER: The question didn't go that far, Mr. Banks. The question was whether or not your experience with this has pointed up the fact to you whether you feel it would be better in any reorganization that might take place to have the applications on unappropriated water and the filings that the State would make for State projects handled by the agency that would do the construction and the operation and the maintenance and the planning, rather than having it handled by a separate agency?

MR. BANKS: It's conceivable that the agency charged with the responsibility for construction, operation and maintenance might make the applications yes. Certainly they should hold the water rights when they are granted. This is our specific recommendation.

ASSEMBLYMAN ALLEN: Mr. Banks, these recommendations that

are being made are based on the assumption, are they not, that there is a surplus of water available to the State to meet all the requirements of areas all over the State?

MR. BANKS: That is our conclusion that there does exist within the boundaries of the State of California and I'll have to put this in, including our present rights in and to the Colorado River, sufficient water, properly conserved, developed and distributed, to satisfy the ultimate needs of the people of the State.

ASSEMBLYMAN ALLEN: And that following these recommendations you have made in the construction of projects to meet these requirements in the water deficient areas that it is not necessary for the State to dry up other areas of California and deprive them of water that is there now?

MR. BANKS: That has never been our concept.

ASSEMBLYMAN ALLEN: Not required to carry out the Feather River Project or any other project?

MR. BANKS: We have never recommended any project which would dry up any area.

ASSEMBLYMAN ALLEN: Is it true also that if on the other hand the construction of a project is not carried out or made extremely difficult that you will have to have an entirely different concept of water rights and their allocation?

MR. BANKS: Yes.

ASSEMBLYMAN ALLEN: That if we have a concept of a water shortage or a scarcity of water that you're going to have to have a lot more specific and detailed and difficult policy in the allocation of water rights. Correct?

MR. BANKS: Yes. I agree with you, Mr. Allen. I think we

should proceed not on the assumption but with full knowledge that there does exist within this State, including the Colorado River and our rights to that, sufficient water. Our problem is essentially one of conserving, developing and making that water available in all areas of the State wherever the need arises.

ASSEMBLYMAN ALLEN: To carry out these policies that you have recommended on the determination of water rights it is necessary for the State and other agencies to construct these works on a large scale.

MR. BANKS: Yes. There are certain basic factual information here in some instances which we do not now have, but there is available sufficient information right now to start on this program. May I point out? I don't believe that the State is going to build all of these projects overnight nor within the next ten years. It will be a progressive thing. We should start with those areas and those streams where there exists no doubt as to the availability of surplus water. In those streams where there may exist some doubt and there are some, as to the availability of any remaining unappropriated water, on those streams we should wait until we have sufficient factual information. May I say this? It is my opinion that all of this must rest upon firm, factual information and upon sound engineering planning.

ASSEMBLYMAN ALLEN: Isn't it true that all of the policies that you recommended on this allocation of water rights and the construction of these large-scale projects is dependent upon the other?

MR. BANKS: No. That is not my view as I said. I believe that there are certain streams in the State where we have sufficient

information available now to state beyond any reasonable doubt that there does exist surplus waters which can be utilized in the development program which we envision. Now, that is not true of all streams. There are streams where we must have more information, but we know, for instance, we have many years of record on the Feather River, for instance, we have studied that. We have many records on some of the North Coast streams. Some of those have been extensively studied, Klamath, particularly. That's under way now. So, we feel that we can start on this program without waiting for a complete survey or complete study of the entire State; that the acquisition of needed factual material can go forward concurrently with the initial stages of the construction or development program.

ASSEMBLYMAN ALLEN: In your recommendations, I notice that water rights as allocated on a state water plan is based on the delivery of a certain quality and quantity of water from the State plan and not from a specific source. In other words Santa Clara County would be entitled to the annual delivery of say 100,000 acre feet of water but not to say that comes from the Sierra Valley or the Klamath or the Trinity or any particular source....

MR. BANKS: That is correct.

ASSEMBLYMAN ALLEN:It comes out of the State pool?

MR. BANKS: That is a good way of expressing it, yes.

ASSEMBLYMAN ALLEN: You have the firm rights to get that much water every year.

MR. BANKS: That's right.

ASSEMBLYMAN ALLEN: That's a type of water right you recommend be allocated?

MR. BANKS: Yes.

ASSEMBLYMAN ALLEN: And in turn to make it possible it depends on the actual physical construction of works to deliver that water all over the State.

MR. BANKS: That is right.

ASSEMBLYMAN ALLEN: I noticed yesterday that Mr. Berry discussed some developments in the North Coastal area, the Eel, Klamath and so forth, that assures that there is this surplus water for all possible needs but on this map we have here I don't see any filings by the Department of Finance....

MR. BANKS: There are none up there except as I say in Trinity, at the site of the Trinity Project and on the East Fork of the Russian River at the site of the Coyote Project which is probably going to start construction this year.

ASSEMBLYMAN ALLEN: Well, isn't it necessary that those filings by the Department of Finance be made?

MR. BANKS: I have recommended in this, Mr. Allen, that the Legislature direct the State Engineer to withdraw from further appropriation those waters.

ASSEMBLYMAN ALLEN: But is it their authority today between yourself and the Department of Finance that those filings be made right now?

MR. BANKS: Mr. Allen, at the present moment it depends upon your interpretation as to the requirement of what is meant by a general and coordinated plan. Whether the things that Mr. Berry discussed are things which are on the drawing board in our organization and responsive to the directive from the Legislature to formulate the California Water Plan. They have not been passed

upon as yet by the Water Resources Board nor have they been submitted to the Legislature as yet. We hope that they will be submitted this year. It is our intention.

ASSEMBLYMAN ALLEN: Well, do we have to wait until the Legislature passes this statute adopting the specific plan in those areas before the Department of Finance can make those filings?

MR. BANKS: We feel that there has to be some formal status of the plan which in the case of the developments of the North Coast, just at the moment, there's some question whether they do have formal status. May I ask Mr. Holsinger to enlarge just a little bit on the legal implications of that language of the law?

MR. HOLSINGER: You will note from the language at 11,500 of the Water Code that it does require there to be in existence a general or coordinated plan to justify the Department of Finance to file an application.

ASSEMBLYMAN ALLEN: Has the Department of Finance recently made filings on the Carson River?

MR. HOLSINGER: You'll have to ask the engineers.

MR. BANKS: I don't believe so, Mr. Allen, we can check.

ASSEMBLYMAN LINDSAY: Sure they did.

MR. BANKS: Did they? Recently?

ASSEMBLYMAN LINDSAY: Well within the last year or so.

MR. BANKS: Let me ask Mr. Gianelli for a statement on that.

MR. W. R. GIANELLI, WATER RESOURCES: Mr. Lindsay, in response to your question, I believe the Department of Finance did file certain applications back in 1952 on the West Fork of Carson River for the Hope Valley side.

ASSEMBLYMAN LINDSAY: All right that's filings 15112 and

15113.

MR. BANKS: Those were based to some extent upon certain planning which had been done by the State and Federal Government. I will have to look a little further into that to give you a specific answer. To be honest with it, that antedates my time with the Division in association with water rights, so I'm not too familiar with it, but we will be very happy to get that information for you if you desire.

ASSEMBLYMAN ALLEN: Well isn't it true that as long as the Department of Finance has not made filings on the North Coastal streams that private individuals and other agencies for their individual purposes can assume priority ----

MR. BANKS: That is correct.

ASSEMBLYMAN ALLEN: And to protect the studies that Mr. Berry told us about yesterday the Department of Finance should have those filings?

MR. BANKS: If it is determined that the present status of the planning is sufficient to serve as a basis, that could be done, yes.

ASSEMBLYMAN ALLEN: Well what good does that do us in the Legislature to consider the North Coastal areas in determination of the surplus of water to make this whole scheme work including your recommendations this morning when the Department of Finance doesn't have the filings?

MR. BANKS: As I said, Mr. Allen, we anticipate that Bulletin #3 which will set forth the California Water Plan will be ready this fiscal year for consideration. Now that will be a master and coordinated general plan and at that time such action

can be taken as is necessary or as is authorized under the legislation in existence at that time to protect these waters and to reserve them in furtherance of this general coordinated plan.

ASSEMBLYMAN ALLEN: But before this Bulletin is published, there may be things that will change.

MR. BANKS: That is a possibility. I don't think that it is too serious a probability within the short time that will elapse until we can take action, either under the present law or under any new legislation. In other words, we're dealing with a matter of six or eight months here and we're dealing also with a very large amount of water up there. It is not conceivable that anybody can go in there at the moment and make application for sufficient quantities to upset this.

ASSEMBLYMAN ALLEN: I don't know what the possibilities are---but I hope you're right.

MR. BANKS: Well, I hope I am, too, frankly.

CHAIRMAN HANSEN: All right now we're back to Mrs. Davis.

ASSEMBLYMAN DAVIS: Mr. Banks, relative to the filings that are made by the Department of Finance and once they are transferred to the Water Project Authority then we must show due diligence, is that correct?

MR. BANKS: Upon assignment from the Department of Finance.. the relief from diligence ceases.

ASSEMBLYMAN DAVIS: All right, then the reservation, whether it be general or specific for the counties up above, the project that is being proposed, they would have to show due diligence, wouldn't they, for the use of that water that was reserved for them? Is that true?

MR. BANKS: No, that has never been our view on the thing, Mrs. Davis, that the reservation in there is good for all time. In effect, as we view it, the reservation estops and in this instance would be the Water Project Authority from protesting a subsequent application upstream for development within that area. In other words, no matter when that development occurred, it might be fifty years from now, but by virtue of the reservation within the assignment that the Water Project Authority at such time as this development may occur, they could not protest it. Now there is another fatal weakness in this, however. That prohibition is only against the Water Project Authority. They are the only ones that are estopped from acting. There are some weaknesses in the law and we believe that they should be rather carefully examined to assure that the objective of providing for the reasonable full development of the counties of origin is achieved.

ASSEMBLYMAN DAVIS: What would happen if a new State Water Department became a reality and the last proposal of the Water Project authority was more or less abolished as far as that specific body was concerned. What would happen there?

MR. BANKS: I would assume that the law would be so written that any agency that might succeed the Water Project Authority and take over such actions as has been delegated to it would automatically succeed to any water rights that might be held of whatever nature by the authority. I think that would be a matter for the Legislature to consider very carefully at that time.

ASSEMBLYMAN DAVIS: Then if I might ask Mr. Shannon a question. I was a little alarmed when you made the statement - that you took the information you had on the valley lands and applied

them to the mountain areas. Is that what you actually meant in this survey that you have been making in the Upper Feather Service Area?

MR. SHANNON: I don't believe I intended to make that impression. All we indicated as far as the water requirements as known now was that most of the data has been available from the University of Davis and most of their studies have been made in the valley floor. We merely use that as a guide and also with additional studies that we're making at the present time throughout the Northeast counties, trying to clarify and to strengthen what those values actually are as applied to the mountains, valleys and foothill lands.

ASSEMBLYMAN DAVIS: Is this information available in a mimeographed form? I'm not too interested whether it be in bound copy, as you make the completion of these studies in these individual counties?

MR. SHANNON: Such information is being tabulated and could be provided.

ASSEMBLYMAN DAVIS: Could it be provided to the Board of Supervisors of each respective County and to the Planning Commissions and Water Resource Boards at this time?

MR. SHANNON: Our data is not complete at the present time but it certainly....

ASSEMBLYMAN DAVIS: Well, it has been completed in my Assembly District. Is that not correct?

MR. SHANNON: It has been completed in the Upper Feather River Area and the field work has been completed as far as the land classification in the rest of your area, but has not been tabulated completely as yet.

ASSEMBLYMAN DAVIS: How soon will it be tabulated that it

might be made available to the different County Boards of Supervisors?

MR. SHANNON: That work is progressing as rapidly as it can, in fact we're working overtime on the job, but I don't know that it will be available before the first of the year.

ASSEMBLYMAN DAVIS: I would appreciate it if it will be available after the first of the year. Mr. Banks, can you tell me for sure, do you feel that it will be available around that time?

MR. BANKS: Yes, I think that's reasonable and let me assure the Committee that at any time we can furnish any information on these problems we're more than happy to do so.

ASSEMBLYMAN DAVIS: Just one more question. Then, after this information is submitted to the different counties, the Board of Supervisors do have the privilege under State Law now to make an application with the State Division of Water Resources which in their own mind and vision is surplus water in behalf of their county. Do they not, just like any other individual?

MR. BANKS: Some counties have done that. There's only one weakness in the thing. The requirements of diligence and prosecution of the thing....

ASSEMBLYMAN DAVIS: Yes, I know that is very true, but if they have a plan....

MR. BANKS:and they intend to implement that plan with reasonable diligence that would be done.

ASSEMBLYMAN DAVIS: Yes, that's right.

CHAIRMAN HANSEN: Mr. Lowrey, we're at long last to you.

ASSEMBLYMAN LOWREY: First, I'd like to know...you speak of the fifteen counties now does that include Glenn, Colusa, Lake and Yolo, or are there nineteen counties? Do you make a study on wild-

life and recreation as part of your plan or is that done by some other agency?

MR. BANKS: We consult with other agencies interested in that, and get their views, their recommendations. With the Department of Fish and Game, particularly, we work very closely with them. They have assigned some fishery biologists who are working.

ASSEMBLYMAN LOWREY: Do they have men in the field who are making a detailed study on wildlife and recreation in these fifteen counties as of now?

MR. BANKS: Mr. Shannon knows more of the details on that. I'll let him answer that, Mr. Lowrey.

MR. SHANNON: Yes, we have one man that is from Fish and Game who is making a study at the present time throughout the Northeastern counties investigation.

ASSEMBLYMAN LOWREY: You say Northeastern. How far does Northeastern go?

MR. SHANNON: It's the fifteen counties as set up by the Legislature.

ASSEMBLYMAN LOWREY: Now, supposing that study by Fish and Game on wildlife and recreation doesn't cover the whole fifteen counties, then I assume in your report you will have requirements for wildlife and recreation in say eleven counties, but your report will be incomplete on the other four, or will you go ahead and round that out on the other four counties?

MR. SHANNON: It will be complete with the whole fifteen counties. We have a contract with Fish and Game to give us a complete study for the whole investigational area.

ASSEMBLYMAN LOWREY: But at a public meeting held in

Corning a short time ago, the statement was made that in the lower western counties there wasn't enough water, fishlife and wildlife to be considered and they didn't have time to include those counties in their study and besides it was all flat land and all they could do was take care of the ducks. Now, if you have a contract with them, is that the kind of a report we're going to get out of Fish and Game? This was a public statement at a public meeting.

MR. SHANNON: I don't know who made the statement....

ASSEMBLYMAN LOWREY: Well, the man who's making the study for Fish and Game.

MR. SHANNON: I'm afraid I can't answer that question.

MR. BANKS: Mr. Lowrey, we will look into that and question them a little further as to how far they are going on this matter.

ASSEMBLYMAN LOWREY: Thank you and now one other question. Do you have a copy of the Pulz Report in your office? (See Exhibit C.)

MR. BANKS: I'm afraid I'm going to have to say at the moment I don't think so, but we'll check. I don't recognize the name of that report at the moment.

ASSEMBLYMAN LOWREY: Well, it was a report on the Feather River. It has not been released to the public. I spent two years trying to get a copy of it. I had a copy which I had to return to the Federal Power Commission, but I have a photostat of it in the office. I was wondering if you people had a copy and if you did I wanted to ask you two or three questions regarding it.

MR. BANKS: I don't recall that name so I'll have to say right at the moment that I don't know. We'll find out, Mr. Lowrey. If you want to ask us later, we'll look into the matter.

ASSEMBLYMAN LOWREY: Thank you. I would like to make the

comment that it's been most revealing and pleasant to have the straight-forward answers that you have presented us this morning. It was invigorating and refreshing.

MR. BANKS: Thank you very much Mr. Lowrey.

CHAIRMAN HANSEN: I'd like to announce the presence of Assemblyman Ward Casey. I'm sorry Ward, I didn't see you before. I'd be glad to have you up here. We're running down close to the end of this. We'll have all of the witnesses that are on the list here and then we'll quit for lunch. I'd like to warn you that we have sixteen or seventeen further witnesses to appear before the Committee. We've heard from one. Mr. McGee, you're next.

ASSEMBLYMAN MCGEE: If we adopted your Recommendation A, relative to what Mr. Weinberger was talking about, should we require the State Engineer to exercise due diligence?

MR. BANKS: If you did it by the mechanism that Mr. Weinberger mentioned whereby the State Engineer were to file an application, I would say certainly that the due diligence clause should be removed because the State Engineer, obviously, being a public servant, can only implement these things to the extent that the Legislature might direct him to or provide money for and he would have no power to go ahead with due diligence on the matter of construction projects.

ASSEMBLYMAN MCGEE: Mr. Holsinger, is the due diligence requirement a constitutional provision? Is it strictly statutory?

MR. HOLSINGER: It's strictly statutory.

ASSEMBLYMAN MCGEE: When did it become effective? When did prior claims not require due diligence? What year, approximately?

MR. HOLSINGER: Well, of course, the requirements of due

diligence were included in the Water Commission Act when it was enacted in 1914. When the relief from diligence was enacted, that appeared in the Figgenbaum Act when it was enacted in 1927 and 1931....

ASSEMBLYMAN McGEE: Relieving only the Department of Finance from it?

MR. HOLSINGER: Yes.

ASSEMBLYMAN McGEE: And you would recommend now, if we do this, A, we also remove the Engineer from the due diligence requirement?

MR. HOLSINGER: It would appear to me that the relief from diligence should apply if and when it was proposed to go right ahead with a feasible project, you see, then the due diligence should be required.

ASSEMBLYMAN McGEE: Lastly, is there any surplus water in the Delta? Have there been any filings, private or by the State on the Delta water surplus?

MR. BANKS: Mr. McGee, there are many filings on the Delta both by other entities and by the Department of Finance. We can detail those for you, but it would be a

ASSEMBLYMAN McGEE: No. Is that still surplus water down there?

MR. BANKS: Now, whether there would be surplus if all of these applications were granted, I'm not prepared to state at this time.

ASSEMBLYMAN McGEE: Who grants them? The Water Project Authority?

MR. BANKS: No. The State Engineer administers water rights.

All I can say in answer to your question at this moment is that there are many.

ASSEMBLYMAN BELOTTI: The filings on record now in my district say, the East Fork of the Russian River and the Trinity, the one on the Russian River, has the Board of Supervisors of Humboldt or Mendocino County filed any applications on any unappropriated waters?

MR. BANKS: I think so, but let me check with Mr. Gianelli to make sure that my answer is correct. Mr. Belotti, the Mendocino County Flood Control and Water Conservation District has some filings, I believe they're on the main stem of the Russian. Again, if you wish we'll get you a detail of that information.

ASSEMBLYMAN BELOTTI: But how about the Humboldt Board?

MR. BANKS: Nothing on Humboldt.

ASSEMBLYMAN BELOTTI: Now, then, any individual or the Board may file depending upon what they think may be needed in the area. Then, if I understand it correctly, those that determine the validity of the application, whether it should be allowed or approved and make a recommendation to the Department of Finance is No. 1, your Department, the Department of Water Resources.

MR. BANKS: The recommendation to the Department of Finance, Mr. Belotti, only applies in the assignment or release from priority of the State Department of Finance applications. The Department of Finance does not enter into in any way an application filed by a public district, or a city, or a single individual for water from a stream. They are only concerned with the so-called Department of Finance application.

ASSEMBLYMAN BELOTTI: So that it's the Department of Water

Resources that really determines whether or not the application should be allowed.

MR. BANKS: Yes. That duty is vested in the State Engineer.

CHAIRMAN HANSEN: I'll now declare a recess until 1:30.

R E C E S S

CHAIRMAN HANSEN: Mr. Banks, if you'll come up here just to be sure we have asked all the questions we want to.

ASSEMBLYMAN COLLIER: Just before lunch a question was brought up by Assemblyman Allen, and you were talking about a plan for the State. Before we get that plan, that is today, you can file on these lands. Does it take a legislative action for us to approve a plan tied in with the present Feather River development, in our overall plan to file on those northwest areas of water, that's on the Klamath and the Smith and the Eel and so forth? Why couldn't we tie those rivers in with a rough plan with the present Feather River-San Luis and the canal plan that we have at the present time in the Central Valley as part of the overall water plan and go ahead and file on those rivers up there?

MR. BANKS: Mr. Collier, do you mean that would be done in response to legislative direction, or without legislative direction?

ASSEMBLYMAN COLLIER: No, without. Can't you do that without legislative direction?

MR. BANKS: Well, let me put it this way. Our feeling has been that there must be some sort of a plan which has some stamp of approval. We have felt that it possibly did not require in order to make filings final legislative approval. As a matter of fact, the old State filings in support of the Central Valley

Project were not made subsequent to legislative approval, but as soon as the plan was out and in what I think it was, Bulletin 12, I believe in the old series, our feeling has been that as soon as the plan is published and approved by the State Water Resources Board there would probably be sufficient evidence of the existence of a general and coordinated plan upon which those filings could be made.

ASSEMBLYMAN COLLIER: I should think we would be very much concerned about that since testimony was given yesterday that all the waters of the San Joaquin Valley and Sacramento Valley will be used by the Sacramento and San Joaquin Valleys and in the final analysis all exportable water will come from the northwest. Do you agree with that?

MR. BANKS: Yes, considering from the standpoint of a mountain the amount of the surplus waters in the Sacramento-San Joaquin Valleys are about in balance with the upper, with the ultimate water requirements of the Sacramento-San Joaquin Valleys. So, from the standpoint of a mountain balancing supply against demand, yes, they are roughly in balance and in the long picture the surplus waters must be found in the North Coast.

ASSEMBLYMAN COLLIER: North West part, then it seems to me like it behooves the agents that are responsible to go ahead and make the filing on those waters, to tie it in with the overall water plan.

MR. BANKS: That, of course, was the basis for my statement this morning that there is some urgency about this whole matter in any event and I will take the matter up with the Water Resources Board and explain the situation to them. If they were to give a

formal stamp of approval to these plans which we have been developing for the North Coast, then there would be evidence of existence of a general and coordinated plan and if, at that time, there is other means available, then we could resort to the State filing system preserving the availability of those waters.

ASSEMBLYMAN COLLIER: Let's get to another section of your recommendations. You said that we should start and get going on this plan. We should get under way. In your opinion, what is the first thing we should do?

MR. BANKS: Well, of course....

ASSEMBLYMAN LINDSAY: Just assume you had all the money in the world and tell him what is the first thing you think should be done.

MR. BANKS: If there were no problems of financing, I would recommend that we start on the Feather River Project. I think that project is the only one that is now at a stage where it's ready to go into final design and into the construction phase within a very short time.

ASSEMBLYMAN COLLIER: Well, now, I'm from Southern California and represent the Southern California area. It seems to me that we, in Southern California, would be assured of a certain acre footage of water from the areas of plenty. To use an arbitrary number of acre footage, say that we in Southern California will ultimately need, say, four million acre feet of water. Well, we don't care where the four million acre feet of water comes from, as long as we get it. Couldn't we work out some kind of a base of apportionment whereby we in Southern California will have an entitlement of say four million acre feet of water? We don't care where it comes

from. Say at a period twenty years from now? Do you agree with that?

MR. BANKS: I think that can be worked out. Yes, sir.

ASSEMBLYMAN COLLIER: You think it can be?

MR. BANKS: Yes.

ASSEMBLYMAN COLLIER: Don't you think that is the first thing we in Southern California should do before we could support anything as to the development of any area to be assured of a certain amount of water?

MR. BANKS: Possibly I misspoke when I said that construction should be the first thing. There are certain things here granted, legislative and legal things which must be cleared up and one is this matter of assurance of a continuance of supply to the areas of deficiency. Our recommendation made in this statement was, that whatever agency it is that's charged with the responsibility of carrying forward this plan of development of our water resources, should be empowered to execute firm contracts with the recipient of the water, the beneficiaries of the water, or the users of the water, guaranteeing to them, insofar as you possibly can under a contract, that they will continue to receive that supply of water. In other words, that you would in effect acquire by contract, which would have the backing of the State behind it, a right to a continued water supply as you say irrespective of source. In the last analysis, fifty years from now, there's going to be a lot of sources which will be brought together and operated as an integrated whole and it will be impossible for any one agency to say at any one time whether they're getting water from the Feather River, the Eel River or the Mad River or whatever it may be. But, they would be assured

that they would get X acre feet of water of a certain quality or better.

ASSEMBLYMAN COLLIER: Pursuing this a little further, now, how about the Counties of Origin? Did I understand you to say that a survey has not been made of the upper reaches of the Feather River as to the amount of water?

MR. BANKS: No, that has been very carefully studied.

ASSEMBLYMAN COLLIER: Oh, that has been completed and then we are actually in a position so far as the Feather River is concerned to make a decision as to the amount of water that actually the need in the county of origin?

MR. BANKS: That's right.

ASSEMBLYMAN LINDSAY: Mr. Banks, do you think it would be suitable inducement to make the filings if this Committee, for instance, should pass a formal resolution asking the Department to make them?

MR. BANKS: If it is the Committee's judgment that we should take immediate action, I certainly think that would be a good declaration of legislative policy on the thing and certainly would be in order for you to make your wishes known to the Director of Finance.

ASSEMBLYMAN LOWREY: A declaration as regards all filings? Is that what you mean, or in specific areas?

ASSEMBLYMAN LINDSAY: What I had in mind was a resolution to the Department of Finance that they make filings sufficient to insure enough water for the State-wide water plan. You'd have to ask the Division then, in its judgment, what would be needed.

ASSEMBLYMAN LOWREY: Where are the filings to be made?

ASSEMBLYMAN LINDSAY: I can't answer that....

ASSEMBLYMAN LOWREY: Well, in some of our areas it's going to be very important to know. I can see Mr. Banks smiling because he knows what I'm referring to.

ASSEMBLYMAN LINDSAY: Well, you probably have a specific instance in mind.

ASSEMBLYMAN LOWREY: Yes, because there's a lot of water there.

ASSEMBLYMAN LINDSAY: Well, do you want it included or excluded into the Finance filings?

ASSEMBLYMAN LOWREY: I'd rather see it stay right where it is for the present moment as far as we locally are concerned. I can't speak for some of the counties, but I think....

ASSEMBLYMAN LINDSAY: The point is that if your counties have already filed or any other local body has filed, you have a prior filing. Isn't that right?

MR. BANKS: Yes, that's right. The State Department of Finance filings do not take precedence over any prior filings.

ASSEMBLYMAN LOWREY: That's right, but it could confuse the issue and when we're just about ready to get some water development in an area to have additional clouds placed into the picture, it might cause some difficulties.

ASSEMBLYMAN LINDSAY: I would assume, that the Division of Water Resources would not recommend a filing that was already adequately being taken care of or was not needed for the State-wide water plan.

ASSEMBLYMAN LOWREY: I'll be very specific. It deals with the Eel River Development which has been publicized by the Division

of Water Resources. That, as I understand it, is something over a billion and a half development project. Am I not correct in that? It probably can't be carried on (the main part of the project) until after the Feather River is completed, I would assume, because I don't know where you are going to get a billion and a half until the Feather is completed.

MR. BANKS: That is right.

ASSEMBLYMAN LOWREY: Now, if you go ahead and make those reservations with some of our projects which are now in the formative period and, I'll be very frank, some of our counties have asked the Bureau of Reclamation to make studies. Now you go and make those withdrawals and where does that put those studies? Those are the things I'm thinking about.

ASSEMBLYMAN LINDSAY: Well, Lloyd, you'd put them in exactly the same relationship as the filings on the American River or on the Trinity River or on the Sacramento River at Shasta. That certainly didn't stop the Bureau of Reclamation. They went in there and they built every one of those.

ASSEMBLYMAN KILPATRICK: Yesterday, I believe it was stated, we have a firm supply of water necessary, kept for perhaps one year in thirty when there'd be a deficiency of about 35%. How about the three years of 1924, 1931, and 1934, when there was a 50% deficiency?

MR. BANKS: Well you would have available carry-over storage, Mr. Kilpatrick. There would be available carry-over storage to take care of that.

ASSEMBLYMAN KILPATRICK: In other words, you think that the storage will make up that?

MR. BANKS: Yes.

ASSEMBLYMAN KILPATRICK: Part of the water that you have been using or planning on comes from the Feather River. Is that correct?

MR. BANKS: That is right.

ASSEMBLYMAN KILPATRICK: And, if we are going to develop the Feather River as an independent project carrying water into the south, then you would lack that quantity, whatever it is, for the Central Valley?

MR. BANKS: May I take just a moment to explain the concept of this? Before I do, Mr. Lowrey, I would like to correct one thing. We have given no estimates of cost on the Eel River. It will be expensive, true, but we have not as yet estimates of cost.

ASSEMBLYMAN LOWREY: The reason I used that figure was that at a meeting in Lake County after a long, drawn-out questioning period, I finally got a figure of perhaps not less than a billion and a half.

MR. BANKS: If I may take just a moment to explain the concept of this whole program of development. The Feather River Project is proposed as the initial unit. As water demands develop in whatever part of the State that cannot be satisfied by the additional water made available by the Feather River Project, it is our concept that additional projects would be built to make available additional water. Now, it is conceivable that the actual body of Feather River water after the second project is built, only a part would go to Southern California. Part would go to the San Joaquin. Part would stay in the Sacramento Valley. We envision the operation of this thing after the second project and the third and fourth, operated as an integrated whole, rather than saying to

Southern California that you are going to get an actual acre foot of water necessarily out of the Feather River Project. An actual acre foot, fifty years from now, might come at any one time from the North Coast, the Feather River or some other place. You see what I mean? It's sort of like a power grid. The power at any time may come from one source or another source, so that the Feather River Project has never been conceived as an end and objective in itself, but only as the first step. When the second step will be needed will depend upon the rate at which the State grows. Does that clarify it at all Mr. Kilpatrick?

ASSEMBLYMAN KILPATRICK: Well, I have further questions, though. I wanted to ask you what was the average run-off from 1927 to 1934? (See Exhibit D.)

MR. BANKS: On the Feather River?

ASSEMBLYMAN KILPATRICK: Yes, the Central Valley. Would you say that the overall run-off average is 33 million acre feet?

MR. BANKS: Oh, I suppose it might have been - in the order of 50 to 60%. If you want those figures, we'll get them for you.

ASSEMBLYMAN KILPATRICK: In order to have water to satisfy everybody we'd have to have the water and if we had a period of several years certainly that would out-run the reservoir capacity and we've had those dry years and it could happen again so we ought to be well aware of the possible features.

MR. BANKS: Our studies of the water to be made available by these projects is based upon a critical period. In common with all water supply agencies, we have figured that there might be in one year a deficiency. I think that's standard engineering practice in the design of projects that in the most critical year that you

will allow a certain deficiency. I might point out, too, that as far as Southern California is concerned, we do not envision that they would give up their ground water development or anything of the kind. All their water resources would be used. If an extreme year of deficiency came along it would be possible to use the ground water. I mean some extreme year that we can't foresee at the time.

ASSEMBLYMAN KILPATRICK: Mr. Banks, it was stated by Mr. Allen and I believe you agreed with him, that we are actually working from a concept of plenty rather than scarcity in the water situation.

MR. BANKS: On the State as a whole that is correct.

ASSEMBLYMAN KILPATRICK: That could be true as far as the overall supply is concerned but it wouldn't necessarily be true during the development period. I mean the available water for use in the several areas. Somebody is going to have to wait while somebody else gets water. Isn't that true?

MR. BANKS: We have envisioned that the Feather River Project would be built in steps. It's true. So far as portions of Southern California is concerned, I think you still have available a considerable reserve in the Colorado River which should be used.

ASSEMBLYMAN KILPATRICK: There would have to be some kind of a time....

MR. BANKS: Oh, yes, absolutely, yes.

ASSEMBLYMAN KILPATRICK: What I'm wondering is this all costs money. You can't raise all the money when we start in and we come to a time when we have half of the project developed and the fellows who have water say, "Well, now, this is as far as we're going." What are we going to do then?

MR. BANKS: Well, Mr. Kilpatrick, on that one I don't know. I'll be honest about it. I'm not a fiscal expert.

ASSEMBLYMAN KILPATRICK: It seems we would have to set up some kind of an answer for that before we start.

MR. BANKS: There has to be some sort of a financing plan set up which will take account of that. As I say, as far as my office is concerned, we have proposed a certain thing for the Feather River Project, but that is only for that project. It may be, perhaps we should look further into the future in financing. I don't know. But certainly the financing plans set up for water developing in this State should envision carrying the thing forward in the logical, orderly, program that is needed and your point is quite well taken that politically you might run into difficulty. I'm frankly not prepared to answer that. I'm sorry I can't give you any better answer than that.

ASSEMBLYMAN PORTER: Did you mean to say a short time ago that the areas of deficiency should have their needs guaranteed in general terms, rather than in a specific term such as so many millions of acre feet?

MR. BANKS: No, I envisioned that. Let's take San Diego County. By the San Diego County Water Authority, they would enter into a firm contract for the supply of 200,000-300,000, frankly I don't remember the figures, but some specific figure as the number of acre feet and some specific figure as to the quality below which the water will not go.

ASSEMBLYMAN PORTER: From the State water pool?

MR. BANKS: Yes. That is right.

ASSEMBLYMAN PORTER: We've been speaking in the Legislature

for a year or so in terms of counties of origin and constitutional amendment, so that both the areas of origin and the areas of deficiency would feel reassured. Do you think that the Legislature will have to have before it, some recommendations from, let's say the State Engineer, from some state body, as to the total number of acre feet available and then a reasonable estimate of what the areas of origin will need in terms of millions of acre feet and then so many millions of feet can be guaranteed to the areas of deficiency. Do you think that would be the next step that your Department can lay before us?

MR. BANKS: We will be able to give the factual data upon consummation of the studies. Now, as to whether that should be written into a Constitutional Amendment, I'm not prepared to say other than a purely personal opinion and if you wish that I'll give it.

ASSEMBLYMAN PORTER: That was going to be my next question.

MR. BANKS: It would be my own personal opinion that as far as a Constitutional Amendment is concerned if one is found to be necessary, that it be couched in very general terms as conferring upon the Legislature and the State Government authority to do such and such a thing or to declare a general policy. If such is found to be required, it should not be attempted to write in specific figures. Because, that imposes a rigidity which is, in my opinion, not justified, since we are to a considerable extent looking into the future here and conditions might change. There may be technological developments that we can't foresee at this time which might change somewhat.

ASSEMBLYMAN PORTER: And so the Constitutional Amendment

could be in general terms. Would you say that it would be reasonable for us to consider statutory legislation that might be in specific terms along the lines of the Colorado River Compact with this millions of acre feet guaranteed in areas?

MR. BANKS: This, again, is purely a personal opinion. If we cannot reach a solution of this thing on the basis of mutual goodwill, then it may become necessary to write these things into the statutes. I would be hopeful that an answer could be achieved here without the rigidity as far as figures are concerned of enacting them into statutes but rather a specific policy set up under which the agency charged with responsibility would function for administration.

ASSEMBLYMAN PORTER: Even a percentage formula would be as rigid as millions of acre feet, do you think?

MR. BANKS: It could be worked out, yes, without imposing undue administrative difficulties in functioning.

ASSEMBLYMAN PORTER: You mean the formula would be flexible enough to....

MR. BANKS: Yes, I think it could, so long as we recognize that this has to rest upon a firm, factual basis.

CHAIRMAN HANSEN: I'd like to comment now that it's now two o'clock. We haven't heard from Mr. Berry yet, maybe some of these questions could be picked up in his testimony.

ASSEMBLYMAN DAVIS: Mr. Banks, may I quickly ask you why you recommend a general reservation for the counties of origin and a specific one for the South? You have felt under the Department of Finance filings that maybe the counties of origin as far as where filings exist, and as far as the State of California is

concerned, would be better protected perhaps by a general reservation than a specific one. Still, in turn, you specify that the South should have a specific number of acre feet that they can plan on. Is that because of the financial revenue basis upon which this thing would be set up on?

MR. BANKS: In part, true. Possibly this reservation which is made under the Department of Finance filings in favor of the counties of origin, or the areas of origin, is not a water right in itself. It is merely an estoppel by the holder of that assigned application against that agency's protesting upstream development. Now, the water rights that are reserved will be vested in the upstream agencies which actually make use of the water. Let us assume for the moment that a reservation, and it makes no difference whether it's general or specific for the purpose of my illustration, has been made that a certain district in the upper area desires to go ahead with a project. Then they must file under the law, and as I say in accordance with the law. They must file with the State Engineer for a water right for their project and they acquire that water right. All the reservation does is to prohibit the assignee of that state fund from protesting this upper development. It does not confer any water right to anybody in the upper area. That's the way the thing is written and that's the way it has to operate, I mean under the present law. Do I make myself clear?

ASSEMBLYMAN DAVIS: Yes.

MR. BANKS: It's a little involved.

ASSEMBLYMAN DAVIS: The reason that I ask some of these questions is because of some of the activities that have taken place in the past. For instance, when your Division asked for the transfer

of some filings in the Upper Feather Basin relative to the Feather River Dam, they were important, it seemed to me, before the Federal Power Commission was interested in issuing to the Feather River Dam its power license. Is that correct? Because of the revenue that actually would have been guaranteed by the transfer of those filings. Is that not true?

MR. BANKS: In the application to the F.P.C. the Water Project Authority had to state that steps were being taken to acquire water rights under the State law and those were the only water rights available to the Water Project Authority. The Water Project Authority itself has made no filings on the Feather River or the Delta.

ASSEMBLYMAN DAVIS: I recognize that, but that was the reason that the State Engineer recommended to the Water Project Authority that the Department of Finance transfer those filings to the Water Project Authority so that the Federal Power Commission then could be assured of that available....

MR. BANKS: Yes, and further that we could begin to go through the process which any application has to go through. It's defined by statute which takes quite a period of time from the time that an application is filed to its completion, the advertising, to receipt of protest, to hearing, and all that sort of thing.

ASSEMBLYMAN DAVIS: Well, at that time these studies in the Upper Service Area were not completed. Nor are they now, as far as financial feasibility is concerned. Don't you feel that was a little premature move on your part?

MR. BANKS: We did not at the time and I don't believe it is now, Mrs. Davis, because we envisioned that this general reservation would thoroughly protect any development that might be made

in the Upper Area.

MRS. DAVIS: Do you feel that your Department would be willing to go along with an appropriation of funds for the purchase of some of these dam sites in the Upper Service Area along with the Feather River Dam site at the same time and hold them in abeyance for future development? Would you be willing to recommend that to the Governor in his budget this year?

MR. BANKS: Yes. I would be willing to say it. I believe that such purchases are good and should be undertaken. This again is a personal opinion. I'm frankly in favor of getting sites before the price goes up, shall we say, and holding them. We have not made such a recommendation in our budget nor have we included it in our budget because there's no authorization for us to do that. You see the Feather River Project studies have been stopped because there are no funds available for it. There were no funds appropriated to our Division for Feather River Project studies this year so that has stopped.

ASSEMBLYMAN DAVIS: You mean as far as the dam is concerned, or you mean the Upper Service Area?

MR. BANKS: Any further necessary studies under your bill, those can go ahead. But I mean as far as studies of the Feather River Project itself.

ASSEMBLYMAN DAVIS: I was wondering then, why have you not undertaken some financial feasibility studies of the recommended dam sites in the Upper Service Area?

MR. BANKS: I can't quote the exact language of that law but the law is written pointed towards solely the determination of water requirements.

ASSEMBLYMAN DAVIS: I understand that, but....

MR. BANKS: We did go so far as with respect to the Upper Feather River Service Area to make certain studies of the physical and engineering feasibility of certain projects and certain preliminary designs, but the language of the law, under which that appropriation was made, is not broad enough to include what you have in mind.

ASSEMBLYMAN DAVIS: All right, then, would you be willing to concur with me and support me in my endeavor to try to insert into the Governor's budget or recommend to Mr. Pierce and the Department of Finance that a submittal should be made for additional finances for a financial feasibility study to be made of these recommended projects in the Upper Service Area?

MR. BANKS: Yes, Mrs. Davis, if our opinion is asked, we will be glad to give our opinion that further study should be made.

CHAIRMAN HANSEN: Now I'm going to rule that Mr. Berry goes on next.

MR. BERRY: I have nothing to say, sir. Thank you gentlemen.

ASSEMBLYMAN COLLIER: Mr. Chairman, may I make a motion or a suggestion here that this Committee take some kind of an action as to pressing its wishes to the Department as to further filings in order to complete this overall water plan? Would that be in order now, or do you think we should wait?

CHAIRMAN HANSEN: I think we should go on down through the speakers list. Some of these folks have been very, very patient. On this other matter, if we want to hold a special meeting to consider that why we'll do it. I'd like to ask Mr. Cooper how long he thinks he would have to have.

MR. COOPER: Mr. Chairman, for my own presentation, I would say one and a half hours.

CHAIRMAN HANSEN: Thank you very much. We'll get to you pretty quick then. Land use capability surveys, presented by Soil Conservation Service, Mr. John Barnes.

MR. JOHN BARNES, SOIL CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE: We can cover this topic very briefly, Mr. Hansen, or answer questions to any extent that the Committee may desire. I have with me here Mr. Leonard Wohletz of my office who is in charge of soil surveys for the Soil Conservation Service here in California. I'll simply make a short statement and then ask him to give you the details of how we carry on our surveys.

The Soil Conservation Service makes soil surveys primarily in cooperation with various local districts and agencies and various groups under cooperative agreements with the Department of Agriculture and the local agencies. It's primarily carried out through cooperative agreements with Soil Conservation Districts, of which there are 111, I believe, in the State at the present time. There are members of your Committee who are very familiar with the detail of how these surveys are made inasmuch as they are directors of these districts, so our explanation will be a little duplication of the information they already have.

We've made in general three types of surveys. The reconnaissance type survey which has covered the entire State in which the large map of California shows the various groupings of soils. The more extensive type of surveys of what we call kind of a detailed reconnaissance nature with various agencies such as some counties that desired broad soils information and the detailed survey made at a

relatively large scale four to eight inches per mile for individual conservation planning with soil conservation districts. The detail work has been primarily confined to the soil conservation districts in the State and cooperative surveys with the University of California. I would like to ask Mr. Wohletz now to show you just what we mean by the soil survey and how we go ahead and how we group the soils information into the groupings that are referred to as land use capability classes. Leonard, I think if you would just show the Committee how this is done.

MR. LEONARD WOHPLETZ, SOIL SCIENTIST, SOIL CONSERVATION SERVICE, U.S. DEPT. OF AGRICULTURE: From the question this morning, there was an indication that the Committee would like to get a more thorough understanding of the procedural and scientific basis for the soil survey work that is being carried on in the State. This problem has been with agriculture since its inception and actually the soil survey work started in the State in 1900. It's been variously handled through the Department of Agriculture, through different bureaus of the Department, in cooperation with the experiment stations up until 1952, when all the soil survey and land classifications activities of the Department were transferred to the Soil Conservation Service. During that period, naturally, there have been much improvement in techniques and procedures and may I add in details of field observations.

About 1935, the concept of grouping soils into land capability classes came into the picture. Because it is involved and rather scientific subject, the problem of expressing the agricultural and other potentials of our lands became paramount it was realized that we needed to group this material into groupings in order to get over

to a larger interested public. It was about that time that the concept of land capability came into the literature. The word capability, just as you would suspect, means the same as applied to land as it does to people. It's purely and simply not what the land is now doing, but what it is capable of doing, just like in the case of human capability.

In starting a job it is necessary to go into the field and on the different farms and parcels of farms and actually make detailed soil observations. I would like to point to a few of the props that we have here to try to give you a mental picture of some of these detailed procedures. The soil is an involved body involving physical, chemical and biological characteristics and our problem is to probe into the soil to find out the major qualities that affect land use. We have all heard of "birds-eyes view" and I think that the soil scientists are essentially sent out to get a "worms-eye" view of what exists below the surface as well as what you can read from the surface features of the landscape. Properties of the soil are evaluated through soil surveys, boring holes in the ground, checking road cuts, checking gulley banks have to do with the permeability, the ease with which roots and moisture can penetrate, the depth of usable soil, the water supplying capacity, nutrient supplying capacity and the permeability and the ease with which roots and moisture move in. Those are the technical features. These observations are made and are plotted upon on aerial photographs, field by field, farm by farm. The specific detail is recorded right in the field as the surveyors go over the land. I'd like to stress that point simply because we have a record of what was observed.

Now the second major phase in the job is to interpret this record in terms of various types of classifications. There are several uses for this information. I'm sure you are all aware. Obviously, any one interpretation would not be adequate. The interpretation that we have stressed in the soil conservation work is one that will best guide proper land use planning and all the associated steps that go in soil conservation programs. Broadly, the land capability classification is an interpretation of the facts recorded in the field and then expressed in first of all a very broad framework and then with further refinements. In other words, we have eight land classes that are relatively simple.

Starting with the Class 1 land, you have suitability for all kinds of use. In other words, full range of usability are ideal bottom valley lands, progressing successively through to the Class 8 land, which has the narrowest range of adaptability and is essentially our watershed, wildlife and our mountain tops. Now in between, we have the other land classes that have narrower suitability for use: Class 2, suitable for intensive cultivated crops, but not very intensive cultivated crops; Class 3, suitable only for moderate degrees of intensity of cultivation; Class 4, very limited; Class 5, 6, and 7 into the range and woodland types of uses that involve less and less disturbance of the soil in connection with the crops that are produced. The fact that our good lands are pretty heavily concentrated in the central valleys certainly stands out on that kind of coverage. Just a little bit on this matter that Mr. Barnes mentioned, the matter of detail. The procedures involved here of going out and making field observations and interpreting can be done at any intensity or level

that the particular objective calls for. You can practically ride through a county and on a general reconnaissance record facts and interpret, or you can carry on down into the very detailed eight inch to the mile type of survey that the service finds necessary to use in connection with individual farm planning. As to cost, the reconnaissance can run all the way from a half to a cent an acre. The semi-detailed runs up to five cents an acre. The detailed runs up to ten and more cents per acre so the objective in any survey has to be pretty well spelled out in advance in order to guide the technicians that go out to do the job. I would just like to stress that the type of interpretation that we have made in connection with the land capability classification is just one of several. The County Assessors, for instance, have great need for soil information as a basis of adjusting their rural taxation and they have assessor groups, but basically they go back to the land facts that can be recorded and are recorded in soil surveys as a basis for arriving at their assessment groups. We have the County Planning Commissions in connection with the urbanization problem. They are showing great interest in the soil information that depicts the quality of the land on which this industrial and urbanization is going on. Any of these values can basically be obtained from a basic soil survey that is carried out in detail.

CHAIRMAN HANSEN: Any questions by the Committee?

ASSEMBLYMAN LINDSAY: Now, the reason we asked these people to come and make a presentation on soil surveys is that these surveys are the basis upon which you base your water needs for an area. Leonard, is all of California covered by aerial photos now?

MR. WOHLLETZ: The vast majority of the State is covered.

I couldn't say as to all of it, but all of the usable areas, the areas that have agricultural potentials have generally been covered and sometimes recovered.

ASSEMBLYMAN LINDSAY: So, we do have a basic map or we have the aerial photographs of the State. That's already done. There's about 31 or 32 million acres in soil conservation districts in the State?

MR. WOHLLETZ: About 34.

ASSEMBLYMAN LINDSAY: About 34 million acres of land are in districts now. What percentage of this has been covered by a detailed survey?

MR. WOHLLETZ: Percentage-wise it would be in the neighborhood of 26 - 28. It's about ten million acres that have been covered.

ASSEMBLYMAN LINDSAY: Already ten million acres have been covered with a detailed survey. Many of the counties though have been surveyed by the State Engineer's office in the mountain counties survey and in the fifteen counties survey that is now going on. That is basically the same work. Not overlapping, but basically the same.

MR. WOHLLETZ: That's correct, and I should like to add that the State Division folks in connection with soil and land classifications have worked mostly together. We exchange information every opportunity so as to avoid this matter of duplication.

ASSEMBLYMAN LINDSAY: They're using the same basic land classifications, eight classifications, are they not?

MR. WOHLLETZ: No, they are not using the same identical classifications. The factors are very similar, but the actual interpretations are not identical.

ASSEMBLYMAN LINDSAY: They can be correlated?

MR. WOHLLETZ: The facts can be definitely interpreted and correlated in terms of their needs.

ASSEMBLYMAN LINDSAY: Then, this picture showing the Classes 1, 2 and 3 is a graphic picture to explain visibly, you might say, the problems that you encounter. The bare land at the top is Class 8, watershed land or unsuitable for anything except wildlife, watershed, and so very, very limited to maybe grazing use. Down to Class 1 land which is perfectly flat, deep soil, no drainage problems and can raise practically anything that the climate will permit in that area.

MR. WOHLLETZ: That's correct.

ASSEMBLYMAN LINDSAY: And your 2 land is slightly rolling or has a problem of leveling or there is some other structural deficiency? Basically though, the soil is deep and good?

MR. WOHLLETZ: Yes.

ASSEMBLYMAN LINDSAY: No. 3 land is just a little steeper for instance or maybe has a problem of drainage or something like that?

MR. WOHLLETZ: Or a little shallower....

ASSEMBLYMAN LINDSAY: Or the soils are a little shallower. Your water problem, irrigation is a little more difficult and that's why it is classed as No. 3 land. Class 4 lands would be generally lands that are dry farm lands today or drain lands on the rolling hills, serious erosion problems if they're not handled with proper cultivation and so forth. You get washes, gullies and so forth. You had some pictures lying here on the table that I thought you might explain. Is that Class 4 land?

MR. WOHLLETZ: This would be an example of 4 land that is being used for rather intensive cultivation. The land is bared by cultivation. The point of bringing these particular photographs along is to point out that not all cultivated land is irrigated and not all irrigated land is cultivated. This is an example of cultivated land that is not irrigated.

ASSEMBLYMAN LINDSAY: It shouldn't be cultivated?

MR. WOHLLETZ: It should not be clean cultivated. I should like to point out the other type of practice that is consistent with good soil and moisture conservation is the case of cropping land. In fact, it is a dual crop there. It happens to be pears with sheep grazing on a permanent cover grown under the pears and is irrigated in order to accomplish this without any evidence detectable, significant soil loss.

ASSEMBLYMAN LINDSAY: Either three or four land?

MR. WOHLLETZ: It is four land.

ASSEMBLYMAN LINDSAY: That's Class 4 land.

MR. WOHLLETZ: This is Class 4 land that is being properly used and cropped but not being cultivated.

ASSEMBLYMAN SCHRADE: Do you take in the type of irrigation, whether it's furrow irrigation and sprinkler irrigation in making those classifications?

MR. WOHLLETZ: That is in the background in arriving at the job, but basically water can be delivered, that is physically, can be delivered to any kind of land and with our sprinkler systems. It just becomes an economic problem of how far we wish to go.

ASSEMBLYMAN LINDSAY: In your opinion, there has been enough work, enough millions of acres have been surveyed that this

process of identifying land and its capability has become pretty well established? It can be relied upon as a basic scientific base?

MR. WOHLLETZ: It's being done all over the United States and is being generally accepted across the board as a way of getting detailed facts and expressing them in a useful manner so that laymen, farmers and planners of all types can comprehend the significance, you might say, of the land facts in our overall planning job.

ASSEMBLYMAN LINDSAY: How long a period of time have these types of surveys been made?

MR. WOHLLETZ: The original soil surveys started in 1900 in California and have been progressing with various speeds depending upon the available funds up to the present day. It was 1934 that the capability interpretation was brought into the picture to help translate technical data into laymen language.

ASSEMBLYMAN LOWREY: I believe you mentioned something about production per acre. I'm wondering if in your interpretations consideration should be given to not only the production per acre, but production per acre per unit of water used. Do you get what I'm driving at?

MR. WOHLLETZ: Yes. I think I see, Mr. Lowrey.

ASSEMBLYMAN LOWREY: In other words, you might get a certain production without water and if you put a little water on some land you'd get a lot of production. But on another piece of land it would take three times as much water to get the same amount of production per acre. Now, do you give that consideration?

MR. WOHLLETZ: That phase of it is primarily handled by the State Division of Water Resources' people in connection with their consumptive use studies, plus the experiment stations. We rely

rather heavily on the information that they supply for that phase of the problem.

ASSEMBLYMAN LOWREY: That is a very important phase, is it not?

MR. WOHLLETZ: That is a very important problem and the soil factors that have a bearing on arriving at the water needs are part of the basic data that we record, because it's a matter of depth of soil, texture of soil, water holding capacity of soil, which is part of this data that we collect.

ASSEMBLYMAN SCHRADE: Out of the 114 soil conservation districts we have in the State, how many of those districts would you say would be in the counties of origin? I think Mr. Lindsay has answered it. He said about thirty per cent. But I would like to go just a little further. Now, the irrigation districts or the soil conservation districts that we have within the counties of origin, do you have your classified survey as to the capability of the soils and in how many of those districts or what proportion of the counties of origin?

MR. WOHLLETZ: That would take a little analysis to state specifically. I can give you the general pattern of the available, modern soil surveys and land classifications through this general state map. I think you will find that the counties of origin are probably some of the white spots on the map.

ASSEMBLYMAN SCHRADE: I don't think that gets to the answer that I'm looking for, sir. In other words the number of districts you have in the counties of origin, you have very few of them that you have actually made a complete survey of, is that right?

MR. WOHLLETZ: I would say that fifty per cent would be just

a rough estimate.

ASSEMBLYMAN SCHRADE: Then it would also be very important to establish the capability of the soils in the counties of origin and that should be done very rapidly. Thank you.

ASSEMBLYMAN LINDSAY: Isn't it true though that you have certain key areas like Placer County District, the districts in Siskiyou County, the districts in Sierra Valley - you have key areas through the counties of origin that would give an indication of the water needs, water requirements for the area? You have enough of that done already to make some general basis within reason there on water requirements?

MR. WOHLLETZ: Yes.

ASSEMBLYMAN LINDSAY: Is Sierra Valley completely covered?

MR. WOHLLETZ: The Sierra Valley is not quite finished. The Siskiyou County is, as you say, in good shape, thanks to the cooperation of the county in that instance. The Pit country, Pit River, Big Valley, is about two-thirds completed. Small Valley, Indian American Valley, all the work is just starting. Siskiyou County is well along. The agricultural lands of Siskiyou County are pretty well completed.

CHAIRMAN HANSEN: Thank you gentlemen. It's been a very interesting presentation. Now, I think we'll call on Mr. Cooper next.

MR. CHARLES C. COOPER JR., ASST. GENERAL COUNSEL OF
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA:

I want to state first that it is our belief that we must have a fundamental framework established in our Constitution for a solution of the problems involving the reservations for the areas of

origin, the quantities of exportable surplus, and the service areas in which those various quantities can be used. We feel that it is just as essential for the protection of the areas of origin as it is for the areas of deficiency that will need to import water. I think it has been brought out here that the statutes relating to the reservations for the counties of origin with respect to waters on which the Department of Finance may have made filings pursuant to Section 10,500 of the Water Code, those filings having to be made solely with relation to coordinated plan for the development of the water resources, do not furnish firm protection for the counties of origin. Also the so-called water protection statutes which are found in Section 11,460 and following of the Water Code, with respect to any phases of the Central Valley Project that may be constructed by the Water Project Authority which is now the construction agency of the State, with respect to the needs of the watersheds of origin and the areas adjacent thereto which can be conveniently served with water therefrom, and do not of themselves afford a real protection and certainly could be the subject of very difficult contests in litigation. I think the Attorney General's opinion of January definitely indicates that. In that opinion he reaches the conclusion that those statutes are valid, but I think it is apparent from his reasoning that he cannot be absolutely certain. Of course, the opinion of one Attorney General might not even be the opinion of his successor and it certainly would not necessarily express the views of a court if the matter were properly litigated. So, I want the Committee to know that those of us in Southern California who have been working on this problem feel that our suggested solution, which of course at present is tentative as

to its actual phrasing and the wording of it, that we feel that proposal is just as essential for the protection of the area of origin as it is for the protection of the areas in Southern California or in Central California. We have endeavored to lay a groundwork, at least for further study by various lawyers over the State with whom we are having contact and discussion. Lay a framework within which all areas of the State may see that their equitable shares of the undeveloped water resources of the State may be earmarked for their future development.

With that preliminary explanation, particularly in view of what your Committee has heard the past day and a half, to save time I will proceed rather closely, Mr. Chairman, with this written statement so as to outline the basic principles that we see, then if there are questions I will be most happy to try to answer them.

"The rapidly growing population and expanding economy of California require the development of all of the State's available water resources. This water program should be accomplished by feasible and sound projects to be developed from time to time in conformity with the State Water Plan established and approved by the Legislature. The present provisions relating to the State Water Plan are contained in Division 6 of the Water Code, including the "Counties of Origin" and "Watershed Protection" statutes, which I wish to discuss particularly in this Statement.

The project generally proposed for early development is commonly referred to as the "Feather River Project", but a very major part involves the Sacramento-San Joaquin Delta Diversion Project by means of which water would be diverted at the Delta and transported southerly for use in the San Joaquin Valley and in areas

south of the Tehachapi Mountains. The "Counties of Origin" and "Watershed Protection" Statutes thus have especial significance for Southern California, because of the large but undefined areas of origin of the water so to be diverted and transported. However, the areas of origin also have a vital interest in the sound solution of the fundamental legal problems involved in the reservations and allocations of water to be made available to the service areas of projects developed in conformity with the State Water Plan.

The opinion of the State Attorney General, rendered January 5, 1955, upholding the validity of the present statutory provisions, has received extensive study and discussion by many interested groups, including members and committees of the State Legislature. The Assembly sat as a Committee of the Whole on April 28, 29, and 30, devoting three full days to discussions by invited speakers who were subjected to numerous questions after completing their addresses, one of the speakers being the Assistant Attorney General who assisted in the preparation of the opinion. The legal, engineering, economic, and financial aspects of the problems involved in the sound development of the presently unused water resources of the State are continuing to receive study by interim committees of the Legislature, by the Sub-Committee of the Statewide Water Resources Committee of the California State Chamber of Commerce, and by other interested bodies and groups. The conviction has grown that the basic principles and procedures by which the complex problems can be solved must be established in our organic law. In other words, we must adopt a suitable amendment to the State Constitution and enact implementing statutes to provide the requisite details.

The General Counsel of The Metropolitan Water District of

Southern California, Mr. James H. Howard, and his staff, have given considerable study to this matter and under instructions of the Board of Directors, drafted Assembly Constitutional Amendment No. 66, which was introduced on May 17, 1955, by thirty-eight members of the Assembly, for reference to interim Committee for study and report. The basic concept of this draft is that quantitative allocations must be made of the waters made available by projects developed in conformity with the State Water Plan - allocations based upon determinations of the boundaries of the watersheds of origin, of the quantities of water originating therein, of the quantities so originating which should be reserved to those watersheds for their ultimate development, and of the resulting quantities which are exportable for use in areas requiring imported water. When a particular project is proposed for development, allocations should be made to the respective areas to be served by such project. Before discussing the major provisions of the proposed amendment, I will outline briefly the present statutory and constitutional provisions which, as pointed out by the Attorney General, pose serious questions which must be resolved before the Feather River Project (or any major water development) can be prosecuted by the State at general State expense.

Section 10500 of the Water Code authorizes the Department of Finance to file applications "for any water which in its judgment is or may be required in the development and completion of the whole or any part of a general or coordinated plan looking toward the development, utilization, or conservation of the water resources of the State." The section provides that the application so filed "shall have priority, as of the date of filing, over any

application made and filed subsequent thereto." The section also provides that until October 1, 1959, or such later date as may be prescribed by further legislative enactment, the Department of Finance shall not be subject to the usual rules of diligence in perfecting the filings and diverting the water. However, under Section 10504 if the Department assigns any application the assignee will be subject to the usual rules of diligence.

Water Code Section 10505 reads: "No priority under this part shall be released nor assignment made of any appropriation that will, in the judgment of the Department of Finance, deprive the county in which the appropriated water originates of any such water necessary for the development of the county."

The Department of Finance has filed many applications under Section 10500 and these filings may cover much of the undeveloped water originating within the watersheds included in the State Water Plan. Projects which may be proposed for development in conformity with the State Water Plan as approved by Division 6 of the Water Code presumably would be grounded upon assignments of applications so made covering the sources of the water to be developed by such projects. Under Section 10505 no such assignment could be made by the Department of Finance unless in its judgment the assignment did not deprive the county in which the appropriated water originates of any such water necessary for the development of the county. Assignment so made might be conditioned by reservations for the benefit of the counties of origin, such reservations for the benefit of the counties of origin, such reservations to be in general terms of all water ever needed for the development of such counties, or such reservations might be quantitative, in which event the Depart-

ment of Finance would be required to determine the quantities needed for the full development of the counties.

Southern California, being at the lower end of any works by which water diverted at the Delta (or elsewhere in Central or Northern California) would be transported for use south of the Tehachapis, needs for its protection definitive determinations of the quantities of water to be reserved for the future needs of the counties of origin. The present statutes do not require such quantitative determinations, nor do the statutes, in the absence of a mandate in the Constitution, furnish a firm basis for reliance upon any quantitative determination made by the Department of Finance respecting waters which would not be transported until many years in the future to Southern California.

The State Legislature by Statutes of 1951, Chapter 1441, added a new Article 9.5 to Chapter 2, Part 3 of Division 6 of the Water Code. Part 3 contains the provisions relating to the Central Valley Project and the new Article 9.5 authorizes the Water Project Authority to construct and operate the units of the proposed Feather River Project as separate units of the Central Valley Project. Such authority is limited to financing by revenue bonds, but the present proposal is to arrange for general obligation bonds of the State and appropriation of State funds to finance the acquisition and construction of the various features of the project. The "watershed protection" statutes thus by their terms would be applicable.

Water Code Section 11460 provides: "In the construction and operation by the authority of any project under the provisions of this part a watershed or area wherein water originates, or an area immediately adjacent thereto which can conveniently be supplied

with water therefrom, shall not be deprived by the authority directly or indirectly of the prior right to all of the water reasonably required to adequately supply the beneficial needs of the watershed, area, or any of the inhabitants or property owners therein."

Section 11463 further provides that: "In the construction and operation by the authority of any project under the provisions of this part, no exchange of the water of any watershed or area for the water of any other watershed or area may be made by the authority unless the water requirements of the watershed or area in which the exchange is made are first and at all times met and satisfied to the extent that the requirements would have been met were the exchange not made, and no right to the use of water shall be gained or lost by reason of any such exchange."

It is readily apparent that the undeveloped water resources of the State cannot properly be developed for the benefit of all areas which should be supplied therefrom unless machinery is set up by which quantitative allocations can be made of the waters needed for the development of the economy of the various areas. The general or blanket reservations for the areas of origin contained in the sections just quoted preclude sound development of the presently unused waters of the State. The watersheds or areas of origin included in the State Water Plan must be defined and delineated and the supplies of water originating therein must be determined. There should be reserved and allocated to the watersheds of origin, from the supplies originating therein, the quantities of water necessary for the development of such watersheds. The exportable surplus, if any, should be ascertained. However, such reservations to the watersheds of origin and determinations of

exportable surplus, are not alone sufficient. When a particular project is proposed for development in conformity with the State Water Plan, the areas to be served by such project should be determined and delineated, whether such service areas be within or outside of the watersheds of origin. Then allocations should be made to the respective service areas of the quantities of water to be served by such project. In the absence of such quantitative allocations giving assurance of firm rights to the water to be made available by the particular project, there could be no sound basis for financing such project and any economy developed in reliance upon the proposed project would be insecure.

Section 3 of Article XIV of the Constitution (adopted November 6, 1928) declares "that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare." The section contains provisions limiting the right to water or to the use of water from any natural stream or water course to such water as shall be reasonably required for the beneficial use to be served. The section prohibits waste and contains provisions relative to riparian rights, which are limited to quantities required for reasonable and beneficial uses on the riparian lands.

Projects which will be developed over the years in conformity with the State Water Plan in the main will be of tremendous

magnitude. The Feather River Project is an example in point. Any such project will require many years for full development and will involve extensive service areas to be reached by long delivery lines. The rules of diligence now applicable to appropriation of water would raise serious, and perhaps unanswerable, doubts respecting the firmness of the water rights for any area which would not receive the water to which it would be entitled from any particular project until many years after the initiation of the planning of the particular project. This is true as to the use in Southern California of water proposed to be made available by the Feather River Project. A Constitutional Amendment must be adopted to provide for equitable allocations of the surplus waters which can be exported from the watersheds of origin without detriment to their development for use in the service areas of the particular project requiring imported water. The reservations to the watersheds of origin should also be grounded upon Constitutional provisions which will make their allocations firm and reliable.

As already noted, Assembly Constitutional Amendment No. 66 was introduced at the 1955 regular session of the California Legislature as a suggested draft of the requisite change in the State's organic law. Although the Feather River Project is most frequently mentioned, the present statutory obstacles inhibit the development at general State expense and on the general credit of the State, of any project approved as part of the State Water Plan. Moreover, presently unused waters (to which no usufructuary rights have yet arisen) should be conserved for future development and use in manner most conducive to their full utilization and to the

advancement of the State's economy -- whether any particular project be constructed by the State or by its local agencies or citizens. As will be pointed out, A.C.A. No. 66 proposes procedures and criteria which would apply to all projects included in the State Water Plan. Further study has resulted in suggested revisions in the printed text, prepared by the General Counsel's office of The Metropolitan Water District, but, except in certain particulars which I will mention, the measure remains substantially the same in scope and method of approach. The revised text will be made available for study and criticism by all interested persons and groups, especially the appropriate interim Committees of the Legislature, and the Subcommittee of the State Chamber of Commerce. I will endeavor to outline briefly the salient provisions of the measure now submitted for consideration.

The proposed Amendment would add Section 5 to Article XIV of the California Constitution. Paragraph (a) of the new Section declares the policy of the State to be that there shall be reserved for beneficial use in watersheds of origin, from the water supplies originating therein, the quantities of water reasonably and equitably (these adverbs are included in the revised text) required for beneficial use within such watersheds and that the waters in excess of such reserved quantities shall be made available for beneficial use in other areas which need imported supplies. Furtherance of this policy requires determination of the respective quantities of water reserved to the watersheds of origin and made available to the areas of deficiency, so that reliance can be placed on such determinations in financing water projects and in developing the economy of the State. The allocations shall be made pursuant to the provisions of

this Section 5, and in furtherance of the State Water Plan as defined and approved by the Legislature.

Paragraph (b) requires the Legislature to designate a department or agency of the State Government which shall exercise the powers conferred by this paragraph, which department or agency thereafter in the Amendment is referred to as the "Water Allocation Department" to enable cross-references to be made thereto. The Water Allocation Department shall delineate the respective watersheds within the State (but under the proposed revision, only those watersheds included in the State Water Plan), shall determine the supplies of water originating therein, and shall allocate from such supplies for beneficial use in the respective watersheds of origin the quantities of water required for their development; the Water Allocation Department shall then determine the quantities of water, if any, permanently available for export from such watersheds of origin, and pursuant to a requirement in the revised text, shall make provision for pro-rating in event of deficiency in the water supplies. The revised draft also provides that these determinations and allocations shall be made by the Water Allocation Department in such sequence respecting the various watersheds as may be directed by the Legislature.

Having made such determinations and allocations respecting the watersheds involved in a particular project, when any such project is proposed for development in conformity with the State Water Plan, the Water Allocation Department shall determine the respective areas which can be served by such project, whether such service areas be situated within or outside of the respective watersheds of origin, and shall allocate the respective quantities of

water to be made available by such project to such service areas, and shall make provision for pro-rating in event of deficiency in the water supplies. These provisions in the revised text take the place of the provisions in A.C.A. No. 66 for determination of, and allocations to, the respective areas of deficiency which can be served by the project.

Paragraph (b) expressly requires that all allocations must provide for the recognition and satisfaction of all presently vested rights to water or to the use of water for beneficial use; all rights to water or to the use of water thereafter acquired shall be subject to such allocations. A provision not contained in A.C.A. No. 66 requires that all rights to water or to the use of water, whether presently vested or hereafter acquired, shall be charged to the allocations made to the respective areas in which such waters will be beneficially used. The allocations shall be made after findings by the Water Allocation Department respecting all factors relevant to proper determination of the particular problems, including any relevant factors which the Legislature may require the Water Allocation Department to consider, and after adequate investigation and hearings, conducted in conformity with such procedure as may be established by the Legislature in order that all interested persons may be given reasonable opportunity to be heard.

Paragraph (b) in the revised draft then contains provisions not found in A.C.A. No. 66, but which have been written to embody the substance of suggestions by members of the Legislature and others that the Legislature be given the opportunity of reviewing the allocations, for the purpose of rejecting any such allocation found to be unsound or unacceptable. Paragraph (b) as now proposed

requires the Water Allocation Department to report each such allocation to the Legislature if then in session or at the regular or extraordinary session next following the making of the allocation. The Legislature by concurrent resolution filed with the Secretary of State within sixty days after such report shall have been received by it, may disapprove the allocation and refer the matter back to the Water Allocation Department, but the Legislature shall not have power to alter the allocation. If the allocation be reported to the Legislature less than sixty days prior to the mandatory date of termination of the session under other provisions of the Constitution, the Legislature may remain in session for the purpose of acting upon the report, but not beyond the period of sixty days from the date the report is received. If the allocation is not disapproved by the Legislature in the manner and within the time specified, the allocation shall be entered in the records of the Water Allocation Department.

Any such allocation may be reviewed by the Supreme Court upon application of any interested party filed within ninety days from the date of such formal entry of the allocation in the records of the Water Allocation Department. Upon reviewing the record the Supreme Court may confirm, modify, or annul the allocation, but if further investigation or evidence be required, the proceeding shall be remanded to the Water Allocation Department for further action in accordance with the Court's instructions. Ninety days after the date of entry of the allocation in the records of the Water Allocation Department, or upon final action by the Supreme Court in the event of its review, such allocation shall be final and binding upon all persons, natural and artificial, public and private, in-

cluding this and any other state and its political subdivisions, municipal corporations and public agencies, and all persons claiming thereunder, and including the United States and its departments and agencies, and all persons claiming thereunder, to the fullest extent permitted under the Federal Constitution and laws.

Paragraph (c) of the new Section requires the Legislature to designate a department or agency of the State Government which shall exercise the powers conferred by this paragraph (which department or agency is referred to as the Water Development Department for purpose of cross-reference thereto). The revised text provides that the Water Development Department also shall exercise such additional powers as the Legislature may prescribe relating to the development and utilization of the water resources of the State in conformity with the State Water Plan. The Water Development Department may contract with any person desiring to obtain water made available by any project developed by the State in conformity with the State Water Plan. Such contracts may be for permanent service, shall conform to the allocations made pursuant to paragraph (b), and under the revised text shall provide for pro-rating in event of deficiency in the water supplies. As a result of comments and suggestions by various attorneys who have considered A.C.A. No. 66, particularly the Assistant Attorney General who participated in the preparation of the Attorney General's opinion referred to earlier, the revised draft provides that such contracts for the delivery of water shall be binding upon the State, and no such contract between the State or its Water Development Department and any public body or agency subject to the control of the Legislature shall be defeasible by reason of any change in the status, form, or

powers of such public body or agency thereafter occurring. Paragraph (c) then provides that water so contracted to be delivered shall be reserved to the contractor without diminution by reason of his failure to divert such water or construct works therefor or to apply such water to beneficial use during any period; in other words, the rules of diligence are not applicable to such contract rights. The phrasing has been simplified, but the substance of this provision remains the same as in A.C.A. No. 66.

Paragraph (d) of the new Section 5 provides that the Water Development Department may request the Legislature to authorize the construction and operation of any project proposed for development in conformity with the State Water Plan. Such request shall be accompanied by the plans for the project as approved by the Water Development Department, including the proposed method of financing. The Legislature may thereupon authorize such project and may provide for the financing thereof in such manner as shall be determined by the Legislature, by bill enacted with the concurrence of two-thirds of the members elected to each House, or if vetoed by the Governor, with the concurrence of three-fourths of the members elected to each House.

It will be apparent from this resume' of the provisions of paragraphs (b) and (c) of the new Section, that the sound reorganization of the departments and agencies in the State Government dealing with water matters must be accomplished to implement the constitutional amendment. Many proponents of legislation for such reorganization have felt that it is primary, and perhaps should precede the adoption of a constitutional amendment. Both in the printed text of A.C.A. No. 66 and in the revised draft which I am summarizing here, effort

has been made to render the amendment effective with respect to any reorganization bill that may be enacted. But for the orderly development of the presently unused water resources of the State, the establishment of a proper foundation in our organic law for determination of the water rights involved in such program is just as urgent. Ideally, solutions of the two phases of the over-all problem should be worked out concurrently.

Paragraph (e) of the new Section provides that the Legislature may create public corporations in furtherance of any project proposed for development in conformity with the State Water Plan, may establish their boundaries and may confer on them such powers as the Legislature may deem proper, notwithstanding the limitation in Sec. 6, Article XI prohibiting formation by the Legislature itself of corporations organized for municipal purposes. This provision has been inserted in the revised draft because further study suggests the desirability of authorizing such formation by the Legislature of large service districts which could purchase water wholesale from the State, for delivery within their respective service areas. A model now exists in The Metropolitan Water District of Southern California, which was formed in 1928 under a general statute. However, future planning may necessitate the establishment of districts of such size and geographic location that formation by local action under general law would be time-consuming, expensive, and uncertain. Any service district required to implement the State Water Plan should possess certain powers of municipal character which cannot now be conferred upon districts created by direct action of the Legislature.

Paragraph (f) of the new Section provides that no right

acquired by any public corporation, public body or other public agency by contract or appropriation or otherwise to water or to the use of water made available by any project developed in conformity with the State Water Plan shall be impaired by reason of any change in the status, form, or powers of such public corporation, public body or other public agency. This provision has been included in the revised draft as a result of the comments and suggestions referred to above relating to the necessity for protecting such rights against possible impairment by the State.

Paragraph (g) makes the new Section 5 self-executing, but provides that the Legislature may enact laws to carry out the provisions thereof.

The foregoing summary of the provisions of this measure discloses the magnitude of the Amendment's scope and the difficulty of expressing concisely and logically the many features necessarily involved in establishing a sound framework in our organic law for a solution of the problems now facing us. Each time the subject is studied and the text examined, additional questions arise which require consideration. Further editing and revision undoubtedly will be necessary, but it is believed that the basic approach here suggested is sound.

Consummation of any feasible project to be developed in conformity with the State Water Plan would not be delayed by the submission and adoption of such Amendment. All studies and data now available respecting particular projects would be pertinent to the determinations and allocations required to be made thereunder. During the time required for the submission and adoption of the Amendment, further studies of the engineering, economic, and

financial aspects of any projects proposed for early development could be prosecuted. Such studies might be made by agencies of the State pursuant to authorization and appropriations by the Legislature at its session in March, 1956. Such studies also might be made by local groups directly interested in the particular projects.

The determinations and allocations essential to the sound development of projects for the utilization of the presently unused water resources of the State involve technical considerations which require findings by administrative and quasi-judicial bodies or agencies after hearing all interested parties. The Legislature cannot adequately make the required determinations. The proposal now suggested, however, would authorize the Legislature to review each allocation and to disapprove any allocation considered by it to be unsound. Furthermore, the measure provides for direct review by the Supreme Court of any allocation upon application of any interested party. Thus, there are two vital safeguards respecting each allocation to insure full consideration and proper determination by the Water Allocation Department of all factors involved therein.

The draft of the proposed Constitutional Amendment here discussed is submitted for study and criticism in the hope that it will be of assistance in arriving at sound solutions of the complex problems regarding the future development of the State's water resources. No matter how difficult, these problems must be solved, if the State is to continue its phenomenal growth."

CHAIRMAN HANSEN: Thank you, Mr. Cooper. Before we have questions, I'd like to recognize Senator Presley Abshire in the

audience. Pres, we're glad to have you. If you care to you can come up and sit with us. Now the Attorney General has been mentioned several times and I think we have Mr. Moskovitz in the audience who might care to make a statement on behalf of the Attorney General at this point.

MR. ADOLPHUS MOSKOVITZ, DEPUTY ATTORNEY GENERAL: I am appearing here in place of Mr. Howland, the Assistant Attorney General, who has been working very diligently this past year on the problem of the respective rights of the areas of origin and deficiency. Mr. Howland was called out of state on very urgent personal business and therefore was unable to be here today. He has asked me to convey to you on behalf of himself and Attorney General Brown the message as to what our office is now engaged in doing on this problem. Mr. Howland has been gathering together a committee of some of the leading water attorneys in the State of California in an effort to formulate recommendations which can be presented to the committees of the Legislature and to other interested groups. This committee of attorneys is not meant to be in competition with any other group that is working on the problem and the effort will always be to cooperate with them. At the present time, there are no recommendations yet formulated and Mr. Howland has told me that he estimates that sometime in December there should be some firm recommendations to make and when those recommendations are available, this committee, as well as other committees of the Legislature, who are involved, will immediately be contacted.

Just to give you an idea of the calibre of attorneys who are involved in this committee I might mention some of the names.

One of them is Mr. Cooper, who is here before you now. Mr. Kennedy, the County Counsel of Los Angeles County is a member, so is Mr. Harry Horton of El Centro, James Abercrombie of Visalia, Jack Menasian of Oroville, Mr. Raines, the counsel for East Bay Municipal Utility District. These are some of the names at random just to give you an idea of the broad coverage throughout the State and I'm sorry that there's nothing firm to offer to you at the present time, but we hope to have something available before the Legislature meets next.

CHAIRMAN HANSEN: Thank you Mr. Moskovitz. I thought it was essential that we get that into the record. It's self evident that we have not been calling on the Attorney General and he isn't here and there should be a real reason for it. Thank you very much. All right, now, some questions. We'll start with you Mr. Allen.

ASSEMBLYMAN ALLEN: Is it your thought that there is an overall surplus or scarcity of water within the State of California to meet our needs?

MR. COOPER: I'm not qualified to answer that but from what I understand of the studies that have been made, there is an overall adequacy of supply but there would be deficiencies in various regions. As I tried to point out with regard to this, one project that we have talked of so much, the watershed of the Sacramento-San Joaquin for overall development, might not be an area of service. Over the over-all picture there might not be water that could be permanently exported from there except as there might be some other source exchanged for that exported water. From our standpoint in the areas to the South, we feel that there must be firmness of right in any water that a project proposes to deliver to us which is to be built and financed by the State.

ASSEMBLYMAN ALLEN: But in drafting this proposal you have done it from the point of view that there is surplus of water available within the State that will meet the present and future needs of people all over the State. Is that right?

MR. COOPER: If properly planned and developed, yes. There would be adequacy. I don't know if there would be surplus. I cannot prejudge the future demands throughout the entire State.

ASSEMBLYMAN ALLEN: And it's not from a point of view of bargaining over water which is insufficient to meet the demands?

MR. COOPER: No. It is not our effort to deprive a watershed of origin of any equitable share that it would need for its development.

ASSEMBLYMAN ALLEN: And it's your thought that if the State develops water supplies, that there is an adequate amount available to meet the demands in the metropolitan water district?

MR. COOPER: That is what I believe we have been given to understand by the studies of the State Engineer which has been made available to us.

ASSEMBLYMAN ALLEN: Yesterday or this morning, we had the recommendations from the State Engineer that on the construction of these large water projects there should be given a firm water right to the areas of deficiency of a definite quantity of water, but without specifying a particular source. Now, do you accept that or do you want to have the source of the definite right to so much water specified also in connection with the water right?

MR. COOPER: Well, so far as I have been able to resolve that question and it is a very knotty question which has been receiving considerable study, I would have to say at the moment that

I think that the allocation should be specific with regard to the particular project. From my present study of it, I would say that the allocation should be specific with regard to the particular project being constructed. As I understood from the Division of Water Resources presentation, the overall development of this state water plan would result in exchange of waters from other watersheds in the future as the demand required and the economy permits the construction, so that in the overall picture there should be enough water to go around. The actual source of the water made available by a particular project, financed at very large expense, out of State funds or State bonds, should be, in my present thinking, allocated to the particular service areas of that project.

ASSEMBLYMAN ALLEN: Let's say for example, we build a canal from the Delta into Southern California. You favor getting your district a definite right to a definite quantity of water out of that canal that is tied into a definite source, for example, the Feather River? Is that correct?

MR. COOPER: In one sense, yes. But, as I said, the actual source of the water would be the diversion at the Delta under the present proposal. As you know, the Feather River end of the development presumably would firm up the supply which would be available at the Delta, but the great part of the actual water diverted at the Delta would not come from the Feather River. As a result of that particular project, when the segment of it were built that resulted in lines that could deliver water into Southern California, then from the sources of that project's water would come the share that would be allocated for Southern California under my present thinking.

ASSEMBLYMAN ALLEN: Then it would be tied in to that particular project as a water right so that assuming there developed a future drought in that drainage system, it would limit the amount of water you'd be entitled to, even though from developments in other drainage areas, such as the North Coast, there might be a surplus available. You would not be entitled to any of that?

MR. COOPER: Except as those other projects in the future were developed and if they involved State financing in which Southern California would bear a very major portion, then the machinery that we are suggesting would permit the proper determinations and allocations of those additional sources of water. Part of those allocations would undoubtedly go to the Valley north of Southern California, but if there were ample supply from that new project such as the North Coastal region, then there could be allocation of a portion of that new supply for Southern California, if the project then planned to be built at State expense were to make those additional supplies available.

ASSEMBLYMAN ALLEN: You want to limit your water right to an allocation from a definite stream and not as an obligation of the State to deliver water to you in a fixed quantity from a State pool.

MR. COOPER: From a state pool, at present, yes. Instead, I would like to modify your statement of stream. It would be a source of water, a watershed of origin. Whatever the source of the water to be provided by the particular project might be, it would, in many instances, be a stream. But we use the term watershed and watershed of origin.

ASSEMBLYMAN ALLEN: Now, I understood also that the State

Engineer's recommendation was to assure the areas of deficiency a fixed water right in a definite amount of water that's delivered. As I understand, your proposal goes beyond that and you want to have allocated before there is any construction or present use of water, a water right that covers propositions that go into the future for water that is not presently used and cannot be used presently. You still want to have a fixed water right allocated that cannot be affected at any time in the future by the people or the Legislature.

MR. COOPER: Yes, in substance, I think that would be correct.

ASSEMBLYMAN ALLEN: And isn't it correct, also, that your present problems on the Colorado River center around that same type of proposition, which is a water right claimed by the users of the Colorado River in Southern California over water that is not used at the present time but it's a water right that was granted some time ago?

MR. COOPER: I think there is a definite difference because basically our right to the Colorado River derives from contract with the United States, which by action of Congress has provided the works which make that water from an interstate stream available to the various contractors. That is different in essence, in some respects. It is different from water rights acquired under state law to waters originating within the State. There is a difference there.

ASSEMBLYMAN ALLEN: We understand that but the controversy is over water which is not being used now but it is a water right which you hope to use in the future.

MR. COOPER: Well, yes, as I said a moment ago, we are only using a fraction of our contract right or quantity of water on the Colorado.

ASSEMBLYMAN ALLEN: The water right that you want allocated under this procedure is not a water right to water you want at the time the project is built or perhaps in the immediate future following that, but water which might be needed ten years afterwards?

MR. COOPER: I would like to modify that because when you say project is built, the overall project, a part of it will be built by the time we use the water. The project actually will be built in stages, under our concept and under the suggestion of the State Engineer's office. You do not build all sections of a very long delivery line and numerous dams and reservoirs at once. You build them in stages and you build them as the need arises for the water in a particular area which will be served by the particular portion of your works. By the time this allocated water right for Southern California, for example, were to be used, twenty years from now, the remainder of the State's works would be built in order to bring that water down to the agreed delivery point. Presumably there would be a contract made with the State to provide that water and to make delivery of it to the contracting agency in Southern California at a designated point. Your works, as I conceive it, will be built in stages extending over a good many years. Of course, that's in the reports of the State Engineer. He contemplates, I think, the same thing.

ASSEMBLYMAN ALLEN: I think we understand that. But isn't it true there are two different possibilities in protection of the water right to areas of deficiency. (1) At the present time, even

though you are delivering water to the area of deficiency, and the economy of the area of deficiency is built up on a basis of use of that water, it could, under the County of Origin Statutes, be withdrawn for use in the counties of origin. That's your immediate problem. There is a further proposal that we change that so that when we're delivering water to an area of deficiency we should do so on a firm water right basis that it can be withdrawn at any time.

Now, as I understand your proposition, you want to go beyond that to a third stage where you are allocated to this machinery a fixed property right in so much water, even though at no time it is ever put to use, and without any requirement at any period, neither now nor 100 years from now that the water be put to use. Isn't that correct?

MR. COOPER: I think it would not result that way because the project as proposed and which would be studied at the time the allocations were made under this mechanics would have to show that there would be a use for that water at some time in the future in the area to which the allocation would be made. Now, if the water allocation department cannot find use for that water in a particular area of deficiency, then the allocation to that area would not be made and could not be made. That, perhaps in essence, is the same as the allocation for watersheds of origin because that allocation is to be made on the basis of the needs of the watershed of origin for water to be provided by the particular project. Now, unless the watershed of origin can show need for a certain quantity of water, the allocation would not be made of that quantity of water for the watershed of origin. The same, of course, would hold true for any deficiency area. I think your facts would handle that and

as I say, we find as we consider this, that there are so many technical questions we feel it is a matter that has to be handled after investigation and evidence and hearing by a qualified body which can consider the technical features.

ASSEMBLYMAN ALLEN: Doesn't your proposal go beyond the requirement of beneficial use of water and allocate a fixed property right to water of an area of deficiency, even though it is not put to use today and regardless of whether it is ever put to use?

MR. COOPER: It would not provide for an allocation of water which could not be beneficially used, Mr. Allen. None of the allocations would be for water for which there would be no beneficial use. You'd have to make a showing for beneficial use, and so with the watersheds of origin.

ASSEMBLYMAN ALLEN: Would you be willing to limit your property right in the area of deficiency to water which can be put to beneficial use?

MR. COOPER: That would be the nature of the allocation, yes.

ASSEMBLYMAN ALLEN: You're willing to limit it to under the requirement of beneficial use?

MR. COOPER: There would be a quantitative determination on a finding made that there would be beneficial use of that quantity of water.

ASSEMBLYMAN ALLEN: But, are you willing to include the limitation on the property right that the water be put to beneficial use in the area of deficiency in your Constitutional Amendment?

MR. COOPER: Those details could perhaps be worked out. There would be no more reason for putting that limitation on the

areas of deficiency than there would be on the watersheds of origin.

ASSEMBLYMAN ALLEN: Well, it's in the Constitution now and applies to all areas, but aren't you seeking specifically, with the wording of your proposal, to eliminate the requirement of beneficial use as to areas of deficiency? Isn't that your proposal?

MR. COOPER: No, no. No more than as to the watersheds of origin. There's a beneficial use in both places. The reservations are to be made of water needed for beneficial use in the watersheds of origin and in the areas of deficiency.

ASSEMBLYMAN ALLEN: Doesn't your proposal seek to allocate the water right without any restriction on the property right in putting it to beneficial use so that in determining the allocation certainly you wish to prepare a plan that says in my county, for example there's an area of deficiency and we're going to need 600,000 acre feet of water a year, eventually. Would you be willing to allocate us a property right for that much water without any future restriction that we ever put that water to beneficial use?

MR. COOPER: So long as the allocation was for beneficial use, I think that would be within the concept of this proposal. Yes. It contemplates present determinations of quantities.

ASSEMBLYMAN ALLEN: To make the determination now?

MR. COOPER: That's correct.

ASSEMBLYMAN ALLEN: Then it is forever binding?

MR. COOPER: That's correct.

ASSEMBLYMAN ALLEN: So that even though my county should never use more than 100,000 acre feet of water it would always be entitled as a property right to the 600,000 and nobody else could get it?

MR. COOPER: If you ever needed that much water. That's correct.

ASSEMBLYMAN ALLEN: And it couldn't be allocated?

MR. COOPER: There could be interim use, I suppose, of it. But it would be water which you could use in the future when you needed it for beneficial purposes.

ASSEMBLYMAN ALLEN: Now water could never be used on a firm water right basis by any other area in the State, even though we don't use it ourselves.

MR. COOPER: That is correct. The answer to that in our thinking is that when we have these quantitative determinations made, with respect to a particular project which has reached the actual planning stage where it is ready to present for authorization for construction, then the people concerned with that project, knowing what those allocations area, can decide the feasibility and soundness of that project. If they are satisfied with it, then it is built on that basis. At present we haven't been able to satisfy ourselves of any better approach to the problem.

ASSEMBLYMAN ALLEN: Well, Mr. Cooper, at the present time your area has the political protection not only of the votes you have at general elections, but some thirty-one very fine Assemblymen in the Assembly and your State Senator, and I see that in the preparation of this proposal you depend not on the political forces you have in your district, but on the mechanics of allocating firm water rights to this water. Isn't that correct? You're setting up a legal machinery that you seek to use for your protection? It's on that machinery that you base your protection and not on the ability and force of your representation in the Legislature?

MR. COOPER: I think, in substance, that is correct, Mr. Allen. We think that this matter of developing of the unused water resources of the State is so vital to the future of the State, that we should place it on a legal basis and not leave it solely to the political form for distribution of those waters.

ASSEMBLYMAN ALLEN: Now, let me see if I understand this correctly as to how this works. Perhaps I have an erroneous impression. The water allocations department, regardless of whatever form it is set up in, and you refer to that in name only, understand, allocates a fixed water right out of a particular project such as the Feather River Project. The allocation is done by civil service employees in the department. Isn't that right?

MR. COOPER: It would not necessarily be so. The establishment of that department is left wide open to the Legislature. I attempted to point out that all the amendment does is to say that the Legislature shall provide a department which will handle that. Now the department could be headed by a director appointed by the Governor with the confirmation of the Senate, or whatever mechanics the Legislature should determine. That's one reason I said a moment ago that the reorganization of the agencies of the State is an essential part of this overall program. That to solve our entire problem involves a proper reorganization of those agencies because they would necessarily implement this water rights situation.

ASSEMBLYMAN ALLEN: I will certainly agree with you there, but initially the determination is not made by the Legislature, but is made by state employees. At the present time, they would be civil service employees. Isn't that right?

MR. COOPER: The statement that the quantitative determi-

nations would not be made directly by the Legislature is correct, yes.

ASSEMBLYMAN ALLEN: Staffed by employees within this water department?

MR. COOPER: Yes, whatever the department is that the Legislature would set up for the purpose.

ASSEMBLYMAN ALLEN: Suppose they make an allocation of water on the Feather River Project, for example, which is unfavorable to your district. It is favorable to my district, to Mrs. Davis' district, to Mr. Belotti's district and you don't like it. Your next step in securing a favorable allocation is in the Legislature where you can pass a resolution which throws out the allocation, the Legislature could not modify it but could throw it out. Right?

MR. COOPER: That's correct.

ASSEMBLYMAN ALLEN: But, your political power is in the Assembly where you do not have the political forces to secure a resolution to be passed. You could block the rest of the State from passing the resolution which you oppose, but you don't have the force to upset this unfavorable allocation to you. That's entirely possible. Isn't it?

MR. COOPER: I think so.

ASSEMBLYMAN ALLEN: Your machinery you have set up has deprived your representation in the Assembly the force that they now have.

MR. COOPER: There is, as I pointed out, the direct review by the Supreme Court if the allocation has not followed the correct principles outlined in the amendment and in the implementing

legislation.

ASSEMBLYMAN ALLEN: Having lost the political force in the Legislature, which you now have to review this allocation which is unfavorable to you, your next step is a contested proceeding in the Supreme Court. Have you set up any criteria under which the Justices on the Supreme Court would review this allocation and modify it in your favor which the Legislature could not do?

MR. COOPER: It is within the contemplation of the present draft the writ of review or writ of certiorari on the record as to whether the allocation department had exercised its jurisdiction properly within the criteria laid down. It would not be a review de novo.

ASSEMBLYMAN ALLEN: Isn't it also true that the Supreme Court is customarily used to acting and their whole philosophy of life is to making reviews in a judicial manner and not in an administrative manner. They might be inclined to approach this review, which is unfavorable to you, from the standpoint of whether the procedure has been complied with and not whether or not more water should be allocated to Southern California?

MR. COOPER: They would be limited to the principles that govern action on a writ of certiorari so that is the present suggestion and that is a matter which is under discussion by the attorneys working on this. Whether the final proposal will involve a greater area of action by the Supreme Court under new rules which will be provided, I do not know. That is a matter which the lawyers groups are considering. But at present, for immediate discussion, we have merely provided the ordinary writ of review on the record to see that the allocation department has exercised its

jurisdiction properly.

ASSEMBLYMAN ALLEN: The Supreme Court reviews this in a judicial manner and they find that the procedure was complied with, the proper state officials had jurisdiction and that the Legislature took no action to upset this unfavorable allocation that Southern California has protested. So, then the water rights allocation become final, they're binding in perpetuity as property rights. Nobody in the State of California could ever upset them because of the due process clause in the United States Constitution. Isn't that right?

MR. COOPER: I'm not prepared to answer that categorically because this allocation machinery would not itself confer private or vested water rights in individuals or local agencies. It would be an area allocation and of course would be primarily designed to apply to projects constructed in conformity with the state water plan. Until appropriations were made and rights acquired thereunder in conformity with those allocations, at the moment I am not prepared to answer your question fully as to whether there would be vested rights.

ASSEMBLYMAN ALLEN: But, certainly, under this constitutional provision it would be binding in perpetuity under the provisions of the California Constitution and no state agency nor the Legislature could make any change to correct the deficiency which you have protested in the successive proceedings.

MR. COOPER: I think that is correct. That is another phase of the problem which is receiving very serious study with a possibility of further suggestions when the lawyers have finished their examination. At present, under this proposal, it might require a later Constitutional Amendment, that is, amendment to the

State Constitution. That's why I answered you before the way I did. Under the Federal Constitution that could probably be done if there were vested rights that had acquired, you would have no occasion to change the allocation because you would have vested rights and show beneficial use for waters within the allocation. But, to the extent that there were no vested rights and it could be shown that there would never be any need for that because the present determination via this allocation department on the best evidence that it could obtain and the experience of the experts who would present their views, it might be twenty-five or forty years from now proved wrong due to something none of us here in the room would know about. That would be handled under our present approach by a further amendment to the State Constitution. Whether we can come up with something further on that, I do not know. That is something concerning all of us very greatly. At present those of us in the South who have been working on it, and I'm sorry that some of them are not here today, we have not as yet come up with any specific proposal in lieu of the present approach. I do not say that we will not between now and March, but at present, it would call for a later amendment to the State Constitution twenty-five or fifty years from now, if the facts were then shown to be completely different than the findings made now on what was now considered to be cogent evidence.

ASSEMBLYMAN ALLEN: Let's assume that we've followed through and have had this allocation of water rights which is unfavorable to you. The next step is the financing of the project in which you have included the further amendment to the Constitution to make the expenditure of State money in water projects more difficult than

the expenditure of State money in other things. Isn't that right?

MR. COOPER: You're talking about the paragraph as to authorization by the Legislature of the financing?

ASSEMBLYMAN ALLEN: Yes.

MR. COOPER: That, again, is a suggested proposal. I don't know what the final recommendation will be on that. The way it is worded now, it could be argued, I think with considerable force, that it is a liberalization because at present, as you know, you cannot issue state bonds over \$300,000, without a vote of the people of the State. This provision we have in here could be read as authorizing the Legislature within this limited field to authorize bonds for a state water project.

ASSEMBLYMAN ALLEN: Without a vote of the people?

MR. COOPER: That is correct. But, on the other hand it would be my personal view that you would have considerable difficulty in getting an approving opinion of bond counsel, unless clarifying language were used in the present draft. I'm not authorized to suggest a change in that language at present to specifically and categorically authorize issuance of general obligation bonds without a vote of the people, but that was originally thought of and put out for discussion in our own groups as well as the groups in the other parts of the State. This was with a thought to illicit a determination as to whether we should authorize the Legislature to issue general obligation bonds without a vote of the people. That's why that is in there and what the final decision will be, I, at the moment, do not know.

ASSEMBLYMAN ALLEN: But your proposal does prevent the Legislature from expending any money on water projects through the

budget bill, for example?

MR. COOPER: That is correct.

ASSEMBLYMAN ALLEN: It would have to be a separate bill passed by two-thirds vote in each house.

MR. COOPER: Yes.

ASSEMBLYMAN ALLEN: And if it's vetoed by the Governor it would require a three-fourths vote in each house?

MR. COOPER: Yes, and that is in there as the protection which you were seeking by your questions earlier for an area of the State such as Southern California, which might find that the factual determinations made by the allocation department would not provide enough water to make it seem sound to 60% of the taxable wealth of the State to support the particular project. That is the ultimate protection in this thing. I think, by your earlier questions, you were wondering what the protection for Southern California, for example, would be if the allocation proved to be adverse to that area. That is, you might say, the final protection.

ASSEMBLYMAN ALLEN: Of course, at the present time with thirty-one Assemblymen it's impossible to appropriate any money under the present procedure which even Los Angeles County opposes. Now your proposal goes further and gives Mrs. Davis and myself the protection, where with just a few votes even we could block something.

MR. COOPER: That is correct.

ASSEMBLYMAN ALLEN: Now the State, never having spent a nickel up to this point on building a water project, and your proposal makes it more difficult to spend the first nickel, do I assume that you believe with this proposal we are actually going to

build something?

MR. COOPER: If we can come to sound program, a sound development of the projects, I would think so, yes. I think this provision, which as I said a moment ago, is in there for discussion and is by no means final in its composition. I think it is a protection to various areas of the State, not merely Southern California, because as you point out, if we had been intending to protect only Southern California, with our vote in the Assembly we could have stayed with the majority rule. But this prevents untoward action as the result of development of determination of facts which may not be now known. That is one of the basic reasons why we feel that whatever the precise provisions be, the general approach should involve determinations of the technical aspects by the best qualified agency and on the best procurable evidence and opinions. If those develop a conclusion, which none of us here might expect, with regard to a particular project and particular areas, that there is just not enough water to make the particular project, as then planned, economically feasible in the development of the social welfare of the State in making its water resources available, then you have that financing protection.

ASSEMBLYMAN ALLEN: And bear in mind that the financing is considered after the water rights allocation and an entirely separate proceeding. If the water rights allocation is unfavorable to your district or even unfavorable to my district, the financing being so difficult, a few votes could block the entire proposal. The water rights allocation has been vested and is permanent and on the books and can't be changed by anybody. So it is entirely impossible at that state without a further amendment to the

Constitution for anybody to move or do anything. Isn't that right?

MR. COOPER: I think that is one phase which further editorial revision and consideration may clear up. These allocations, of course, primarily are intended to relate to particular projects. Just for an example, to refer to the Feather River Project or to the American River Project or whatever the project may be, if it were determined that project would not feasibly be built, then we could make specific provision for removing those allocations because those allocations, you will note from the language I summarized, has to do with determinations of watersheds involved in the State Water Plan and the waters to be made available by the particular projects being built in conformity with the State Water Plan. If you go through that and then conclude after you have your scientific information before your factual information that the particular project cannot feasibly be constructed, then I think we could provide machinery. We certainly are giving thought to that by which those allocations would be removed to be available for any other project which might then be planned.

ASSEMBLYMAN ALLEN: If this machinery is set up, aren't you creating the machinery under which even though the Legislature wants to build a project, Feather River or some other project and the majority of the people are in favor of it, you can very easily make it effectively impossible for the State to build it. Then we have to turn to either local financing or the federal government to construct it and then the State can start all over again on water rights, allocation and some other project.

MR. COOPER: As I said a moment ago, the mechanics of the vote are purely suggestive and may well be changed, but you have

suggested a thought to me. I want to emphasize that we are trying to approach this on a basis broad enough to cover any type of development that might occur in conformity with the State Water Plan. Projects that would be built at general state expense by the State or portions or all of a particular project which might be built by local enterprise whether it be a public district, as I conceive it probably would be because of the magnitude of a particular project and the cost involved, or whether it be developed by private enterprise, we feel if at all possible we should come up with a mechanics which would be broad enough and flexible enough to cover all types of actual developments in the construction of a particular project and not limit it to one type of development only, such as a general state expense. We definitely must provide for projects which are to be built by the State because it may well be that most projects for future development will be at state expense because of their tremendous magnitude. But the organic law, we feel, should be broad enough to fit all types of development in the future of presently unused water resources to which rights have not yet vested.

ASSEMBLYMAN ALLEN: I appreciate, Mr. Cooper, that you may come up with modifications in this proposal, but if this represents the best thinking in Southern California on this problem, I feel that we might as well quit spending money on state investigations and when I get home tomorrow I should ask my Congressman to make the best deal he can with the federal government to appropriate some money to solve our local water problem and just forget about the State entering into the picture at all.

MR. COOPER: I'm sorry to hear that.

ASSEMBLYMAN LINDSAY: Mr. Cooper, you've seen Assembly

Constitutional Amendment 65 and I think you think it's too short. Isn't that right?

MR. COOPER: I think it doesn't quite fit the situation.

ASSEMBLYMAN LINDSAY: All it does is let the Legislature remove the restriction or requirement of beneficial use.

MR. COOPER: Yes. It puts it, as I recall it, in the hands of the Legislature to make all the determinations as to the quantities and the method of allocating the water.

ASSEMBLYMAN LINDSAY: Haven't you done that in your amendment?

MR. COOPER: No.

ASSEMBLYMAN LINDSAY: You provided for legislative review.

MR. COOPER: That's right, for veto, that's correct.

ASSEMBLYMAN LINDSAY: But you've also insisted that this water right question or the setting of the water right be done before a project is financed.

MR. COOPER: That's correct.

ASSEMBLYMAN LINDSAY: Well, if the Legislature doesn't agree with the water right setup in its review, how do you think you're going to get any money out of the Legislature? You put it right back in our hands.

MR. COOPER: That's correct. That's why I say, there are two vital safeguards there. One is right in the hands of the Legislature that if the actual allocations are considered unsound, then the Legislature sends it back and there would be no financing on that basis.

ASSEMBLYMAN LINDSAY: Then since you admit that it's back in the hands of the Legislature, why all the detail written into a

Constitutional Amendment?

MR. COOPER: Because, Mr. Lindsay, we feel that the matters involved in making a quantitative decision are so technical in character and require such investigation and presentation that the basic data should be passed on by an administrative body in a quasi judicial proceeding.

ASSEMBLYMAN LINDSAY: Don't you think that they're going to have to present that same testimony to a legislative committee before they get one dime out of them?

MR. COOPER: I would not want to get into a discussion of the legislative processes, but I do think that the methods would be quite different as to presenting the factual information.

ASSEMBLYMAN LINDSAY: Then, I don't think you're familiar with legislative process. I think you have done just what Mr. Allen has said. If this Constitutional Amendment were passed in your effort to safeguard yourselves down there you have allowed a handful of people in the Legislature to kill any water department, or any water project in the State of California, in your so-called safeguarding of your own people. I think that your Constitutional Amendment and all through your testimony now you have stated that's a further point for further consideration. Actually, we don't have anything before us.

MR. COOPER: No, we do not have any precise text which we have had a chance to discuss efficiently with the various attorneys and other interested groups that we wish to present to the Committee. But we are working on it and I felt in view of the Committee's request that some presentation be made....

ASSEMBLYMAN LINDSAY: Well, I agree that we should have....

MR. COOPER:and it might possibly be worth while to outline the general approach for whatever it might be worth, to your Committee at this time.

ASSEMBLYMAN LINDSAY: I agree with that, Mr. Cooper, because I think that the Committee and maybe the general public should be well aware of what thinking is going on in the attorney group that is attempting to write a Constitutional Amendment which will have to be presented to the Legislature for approval.

MR. COOPER: May I say in that connection, that what I have indicated and I hope I have made it clear, is tentative and has not been reviewed by the attorneys' groups thoroughly enough to know what our suggestions will be. There are attorneys in various regions in the State both in the South and in the North who are going to consider this, some of them in the near future, so that I cannot speak now as to what their conclusions will be. I cannot say what my own conclusions will be after I have had these further conferences, but I did think our work had progressed far enough that we might outline for the present information of the Committee some of the problems that we see and the possible solutions that we see. I am very happy to have these reactions because I knew that I would receive reactions and I wanted to have the benefit of considering them in the further discussions with groups over the State. I do want to make clear that the thing is still completely flexible and tentative as far as our group is concerned and as far as those that I am dealing with.

ASSEMBLYMAN LINDSAY: All I urge you to do is just give further consideration then to the Constitutional Amendment No. 65 as proposed.

ASSEMBLYMAN MCGEE: I'll be very brief. The proposed Constitutional Amendment in no way repeals the existing Constitutional provisions or law. Does it?

MR. COOPER: No, it's certainly not intended to repeal either the spirit or the text, certainly not the text. It does this, Mr. McGee, it would allow determinations to be made now which would permit the withholding of water, the use of water, with regard to the acquisition of vested rights for uses which might arise sooner than the uses could arise in the areas of deficiency or the watersheds of origin because it applies equally to both. As I said earlier, I have very grave doubt as to the adequacy of the protection of the watersheds and counties of origin under the present Constitution and statutes.

ASSEMBLYMAN MCGEE: But, in effect, then you're writing the present counties of origin theory for their protection into the Constitution and adding constitutional protection for the areas of deficiency when an allocation has been made to them, thus setting forth the machinery in the Constitution for first, the decisions as to the determinations of the needs of the areas of origin and the amount of exportable water from it and the firming of the areas to which that water is allocated.

MR. COOPER: And right with it would be a firming up in the Constitution of the reserve rights of the areas of origin. They go hand in hand and as I tried to indicate in our view. The areas and watersheds of origin need that constitutional foundation just as much as the areas of deficiency. We would protect them and we would protect the areas of deficiency. To that extent there would be some impingement upon the present constitutional provisions which

present grave doubt as to whether the watersheds of origin could have a reservation of water which it would never use for twenty, twenty-five, thirty years. If, in the meantime, some area outside of the watershed could show a present beneficial use for that water and a present ability to divert and make use of this - we have attempted to protect both areas.

ASSEMBLYMAN McGEE: In the fear expressed here just now that a handful of legislators could hold up any construction project, then, is exactly the same as it is under existing law because of the same handful of legislators today.

ASSEMBLYMAN LINDSAY: This is outside the budget. It requires by constitutional amendment. You can't have any budget appropriation.

ASSEMBLYMAN McGEE: Well, even the budget takes 54 votes.

ASSEMBLYMAN LINDSAY: The budget is a lot easier to argue than one project anyhow.

ASSEMBLYMAN McGEE: But the same fear that has been expressed here under your provision is exactly the same legislative status or procedure that does exist today.

MR. COOPER: Numerically, it is.

ASSEMBLYMAN McGEE: In other words, if 27 votes in the House of the Assembly don't like any project as proposed under existing law, under existing constitutional provisions, it won't get built.

MR. COOPER: We have tried to provide machinery where a proper project could be authorized. Now, under the uncertainties and lack of constitutional support we fear that it would be very difficult to build a tremendous project at state expense.

ASSEMBLYMAN LOWREY: Mr. Cooper, you spoke of equitable shares of water at one stage of your discussion and followed that by a statement to the effect that we in Southern California would bear a very major portion. I assume you meant would bear a major portion of the cost. I think you implemented that later by saying approximately 60% by the tax paying ability of the State of California, is that correct?

MR. COOPER: Yes, of projects financed by the State.

ASSEMBLYMAN LOWREY: Yes, that's right. Now, you are asking that you get a fixed amount of water to your area. Is that correct?

MR. COOPER: It would depend upon the project.

ASSEMBLYMAN LOWREY: Yes, on the project.

MR. COOPER: If the project were one in which no water were to be provided to us we would not expect water from that project, but the immediate project that is proposed....

ASSEMBLYMAN LOWREY: In the overall state plan it would be fair to assume that you expect to get an equitable share of surplus waters. Is that correct?

MR. COOPER: That is correct.

ASSEMBLYMAN LOWREY: And at a fair price, perhaps at a price less than the actual cost of the water, essentially so it would have to follow would it not?

MR. COOPER: No, I would not be prepared to say that at all.

ASSEMBLYMAN LOWREY: Is anybody that is getting water now from the Central Valley Project, let us use that as an example, paying the actual cost of the water?

MR. COOPER: Well, I think probably not, but may I point

out that Southern California has financed its own water importation projects, both the City of Los Angeles and the Metropolitan Water District, with very, very considerable expense.

ASSEMBLYMAN LOWREY: That's right, also San Francisco and other areas. Now, you are apprehensive of protecting Southern California's investment. How about the North Coast area that has a surplus of water? How about San Francisco that has its Hetch-Hetchy development? How about all the areas of the State that will not get that equitable share of water from these projects? Are you willing to agree that there will be areas that will not get water from this development? Their needs will perhaps be met without it.

MR. COOPER: I don't know that I could say that as broadly as you have stated, because if I understand the proposal for a state water plan, there will, over the years, be a development of the presently unused water resources of the State in such manner as to make those waters available where it is needed.

ASSEMBLYMAN LOWREY: That's right, where needed.

MR. COOPER: Any particular project obviously could not supply all areas of the State that might want additional water. You'll have to take it project by project and I would conceive that the Bay Area will, of course, some day receive additional water from a proper project.

ASSEMBLYMAN LOWREY: But when you speak about equitable share in the cost, isn't it a fact some areas of the State are going to be subsidizing other areas of the State, over the next thirty or forty years as a minimum. They don't want any of that water particularly, so all those areas of the State that are not getting water from this project, or from these developments, will be

paying their share just the same as Los Angeles and that area will be paying for water, or say my area that will be getting some of the water. So they really are subsidizing us, are they not?

MR. COOPER: I think in the correct sense, that is true. That when you build works at general state expense, unless those works themselves directly serve the entire state, some portions of the state are in the technical sense subsidizing the areas that are getting the benefit from that particular project. May I point out, Mr. Lowrey, that the northern areas of origin that need early development of works for their areas would to a certain extent be subsidized by the other areas of the state, including Southern California. Because if we use merely the Feather River Project, as it is commonly designated, there would be many years before Southern California would get any benefit from that project. I'm not prepared to give an estimate, but it has been said from fifteen to thirty-five years, or something like that because we have such a large quantity of Colorado River water which we are not yet putting to use. Now, during those intervening years, if we finance the upper portions of the projects, at general state expense, there would be during that a period a subsidy from the other regions of the State, including Southern California. I would suppose that is implicit in a development of a state water plan by the state itself. That is an essential of it.

ASSEMBLYMAN LOWREY: That's right, but let's think about these communities in the North and I think there may be some small ones in the South. Perhaps on, in time, immemorable will be subsidizing the areas that use the water and will eventually use them, including Southern California. So there will be areas in

Northern California, over the whole long haul will be subsidizing. So it isn't all a case of where Southern California is paying for something it isn't getting. Actually over the long haul, areas in Northern California will be subsidizing other areas of the State and they won't get the direct benefits from the use of the water at all. That's the point I wanted to make.

ASSEMBLYMAN WEINBERGER: Mr. Cooper, your constitutional amendment refers to an agency which the Legislature might designate to exercise powers and which you refer to first as a water department then over here on page three as a construction department. I take it that those are just labels and that you did not intend to freeze into the Constitution the two-headed water department or anything of that sort. That these are just labels for identifying particular functions and conceivably they could be assigned to one single headed agency?

MR. COOPER: That is correct. Actually, in our latest revision which we have under consideration to make it more apparent by name we call the first the water allocations department and the second the water development department, so as to indicate that the development department would have all the functions at least for the planning and development of the water resources and the allocation department. If it were to be separate, would have the application of the water laws and the making of these applications.

ASSEMBLYMAN WEINBERGER: It wouldn't require that they be separate? It's just a method of labeling?

MR. COOPER: No. I would like at some time the privilege of discussing with your Committee some of those features but I am not prepared today. I think it is outside the scope of my presen-

tation today.

CHAIRMAN HANSEN: Thank you very much, Mr. Cooper.

ASSEMBLYMAN DAVIS: Mr. Chairman, you didn't let me finish my statement I was going to mention that the Metropolitan Water District people, including Mr. Cooper, spent a great deal of time here during the Legislative Session. It seems to me that your approach here today, as we all know, has been a legalistic one and I might suggest and extend to you an invitation, Mr. Cooper, to make some of these field trips the Committee is making tomorrow morning to learn some of the practical aspects so that you might see that picture also besides the legal one, although I certainly have respect for the legal profession. I don't think this can be answered entirely from a legalistic point of view.

MR. COOPER: I think you are correct, Mrs. Davis, and I regret that a matter in court prevents my going with the Committee, but the representatives of the Metropolitan, both from the legal staff and from the engineering staff, will accompany the Committee. We are vitally interested in the trips and the studies and we stand ready to appear at any time any of the committees ask us to do so.

ASSEMBLYMAN DAVIS: I certainly hope they bring the message home to you, Mr. Cooper, because you are quite active during the legislative session.

ASSEMBLYMAN UNRUH: I just want to ask one very brief question. There's nothing in your presentation here today, was there Mr. Cooper, that would preclude us from proceeding with plans to organize a single water department?

MR. COOPER: No. I tried to say that really should go along with this study.

ASSEMBLYMAN UNRUH: It could even go before it. Couldn't it? I mean before this is ironed out, we can still proceed with the single department of water.

CHAIRMAN HANSEN: Thank you very much, Mr. Cooper. Now we'll call on Mr. George Murphy to discuss A.C.A. 66.

MR. GEORGE MURPHY, DEPUTY LEGISLATIVE COUNSEL: Mr. Chairman, and members of the Committee, I have been asked to discuss two measures before the 1955 Session of the Legislature, Assembly Constitutional Amendment No. 65 and Assembly Bill No. 3799. I believe that A.C.A. 65 was discussed and explained during the conversation between Mr. Lindsay and Mr. Cooper and with your permission I will pass on to a discussion of Assembly Bill 3799.

ASSEMBLYMAN McGEE: Before he proceeds may I ask one question?

CHAIRMAN HANSEN: Yes, Mr. McGee.

ASSEMBLYMAN McGEE: I have never clearly had it explained to me why it would be desirable to eliminate from the Constitution the requirement of the beneficial use expression, which as I understand it 65 would do.

ASSEMBLYMAN LINDSAY: So does your 66, with a very complicated deal.

ASSEMBLYMAN McGEE: No, my amendment does not purport in any sense of the word to eliminate the beneficial use theory in the Constitution as it is today. It does not repeal, neither does 65, but what is that argument?

MR. MURPHY: The opinions relating to beneficial use that are found in Section 3 of Article 14?

ASSEMBLYMAN McGEE: Right.

MR. MURPHY: You add a new section, Section 4 to the Constitution. I don't believe it would affect the general principles except that it would extend the theory that diligence wouldn't be required in respect to these filings.

ASSEMBLYMAN McGEE: Well, the whole purpose then of 65 is to repeal the beneficial use provisions contained in Section 3 of the existing Constitution?

MR. MURPHY: I don't believe so, sir.

ASSEMBLYMAN McGEE: Oh, well then I misread it.

ASSEMBLYMAN LINDSAY: It only extends that to these particular filings. Right?

MR. MURPHY: Right.

ASSEMBLYMAN McGEE: To future filings, is that it, Francis? You're the author.

MR. MURPHY: You'd authorize the Legislature to make reservations and allocations and establish priorities for areas of surplus and deficiencies as to any unappropriated water or water subject to application to appropriate filed by the State or any department, commission, or authority thereof. Such allocations and reservations and priorities would be valid for such time as the Legislature would prescribe without the requirement that the water be placed to beneficial use or that diligence be used in completing the application. That would only apply while they are in the application stage and would extend for such time as the Legislature would prescribe. The matter will be entirely within the hands of the Legislature under this provision. It would merely permit the Legislature to reserve water over a period of time without requiring that it be placed to beneficial use.

ASSEMBLYMAN McGEE: Or, that due diligence be exercised, as is now required by a statute.

ASSEMBLYMAN LINDSAY: No, by the Constitution.

ASSEMBLYMAN McGEE: No, due diligence is not required by the Constitution.

MR. MURPHY: Due diligence is required in respect to applications, generally, but not required with respect as to applications which have been filed by the Director of Finance.

ASSEMBLYMAN McGEE: But due diligence is not now in the Constitution?

MR. MURPHY: Due diligence is not in the Constitution now, no.

ASSEMBLYMAN McGEE: It is in a statute?

MR. MURPHY: That's correct.

ASSEMBLYMAN McGEE: And beneficial use is in the Constitution.

MR. MURPHY: That's correct.

ASSEMBLYMAN McGEE: Sixty-five would repeal, in effect, and actually, the beneficial use theory in the Constitution. It would repeal the due diligence statute.

MR. MURPHY: I don't believe it would repeal either one of them. It would permit the Legislature to suspend the requirements of Section 3 with respect to beneficial use and permit them to stay the requirement of diligence.

ASSEMBLYMAN McGEE: In its discretion?

MR. MURPHY: In its discretion, yes.

ASSEMBLYMAN McGEE: On specific projects.

MR. MURPHY: This applies only to applications which are filed by the State or any department, commission or authority

thereof. It wouldn't go generally to all applications, but merely those specific types of applications.

CHAIRMAN HANSEN: Any questions by the Committee?

MR. MURPHY: Turning now to Assembly Bill 3799, I will discuss it as amended in the Assembly May 6, 1955. Generally speaking, this bill would require the State Engineer to classify the land in each watershed of origin and prescribe the amount of water to be reserved by use on such land depending on the uses, soil classifications and elevations. Subject to approval by the water project authority, it would authorize the appropriation for use in areas beyond the watershed of origin up to 90% of the water not so reserved for the watersheds of origin. It would provide for the proportion and sharing of water at times of shortage. The State Engineer would be authorized to modify all appropriations to permit the substitution of newly developed water supplied, if the appropriator was not required to assume the cost of any additional diversion or distribution facilities. The present sections relating to reservation of water for counties and areas of origin would be repealed. Considering the provisions of the measure then in more detail, watershed of origin would be defined to mean with respect to any water, the watershed of any natural water course through which the water flows. However, any portion of that watershed upstream of the point at which the water enters would not be included within the watershed of origin. Likewise, any portion of a watershed outside the State would not be included within a watershed of origin. All lands within the general watershed areas of the Sacramento and San Joaquin stream systems would be considered as being within the watershed of the Sacramento River, the

San Joaquin River or a tributary of one of those river which contributes more than one and one-half percent of the total flow of that river.

As I have indicated, the bill would require the State Engineer to determine the number of acres of soil classification in each watershed of origin. The soil classification, would be according to that of the United States Soil Conservation Service, or a classification of the Division of Water Resources and the University of California Extension Service, as similar as possible to that of the United States Soil Conservation Service. The State Engineer would be required to publish a report of his determinations with respect to each watershed or origin as it is completed, together with a compilation of all available information as to the water supply annually available therein. The report would include the safe yield of the underground water and the unappropriated surface and sub-surface waters of each stream in the watershed. Provision will be made for protest, hearings and modifications of the determinations of the State Engineer and for judicial review of such actions. The State Engineer in making a determination would be required to include determinations as to any areas of the State for which there was not a quantity of water which when added together with the water from all other available sources would be sufficient to provide the minimum quantities prescribed in the bill. Such areas would be designated as areas of deficiency and provision is made for protest, modification and judicial review of the determination.

With respect to reservations, the State Engineer would be required to establish a reservation of unappropriated, surplus

waters of that amount which when added to the available underground water and the water available under existing right would provide for the use on all lands throughout each watershed of origin the following amounts: (1) For irrigation, 4 acre feet of water annually for each acre classified in the soil classes 1 through 6, having an elevation of less than 2,000 feet above sea level and 3 acre feet of water annually for each acre of land so classified having an elevation of greater than 2,000 feet. (2) For domestic uses, one quarter acre foot of water annually for each acre classified in soil classes 1 through 6 and having an elevation of less than 4,000 feet. For industrial uses, one half acre foot of water annually for each acre classified in soil classes 1 through 6 and having an elevation of less than 4,000 feet. To meet drought and other causes, one quarter acre foot annually for each acre classified in soil classes 1 through 6 and having an elevation of less than 4,000 feet. No reservation would be made for lands having an elevation greater than 4,000 feet. However, the total amount reserved for all purposes would be subject to use throughout the entire watershed without regard to elevation or place of use or any other limitation. The amounts of water reserved for any particular land would not exceed the amount of water entering the water course upstream of the particular land. The amounts of water included within the reservation so established by the engineer for irrigation, domestic and industrial uses would be subject to appropriation pursuant to law for uses on land within the particular watershed of origin. Quantities of water included in the reservations established by the State Engineer for use during water

shortages would be administered by the water project authority, first, to meet the requirements under appropriations made from reservations for irrigation, domestic and industrial uses in the watersheds of origin proportionately in the event of a water shortage and next, for the sale on a year to year basis, subject to first priority.

All unappropriated water in excess of the amounts included in the reservations established by the State Engineer for uses in the watersheds of origin would be available for appropriation within or without its watershed of origin proportionately to the areas of deficiency under the applicable rules of law and subject to the water project authority. The water project authority would not approve the appropriation of more than ninety percent of the water available for appropriation outside the watershed of origin. Water available, but not approved for appropriation, would be administered by the water project authority and used first to meet the appropriations inside and outside the watershed of origin proportionately and in event there is a water shortage for any reason next, for sale on a year to year basis. All appropriations of water made pursuant to the provisions of the bill would be subject to modifications by the State Engineer to permit the substitution of newly developed water supplies of equal quantity and quality in lieu of waters originally appropriated. Such substitution could not be made, however, where the appropriator would be required to assume the cost of installing any additional diversion or distribution facilities. All unappropriated water, except the water subject to the applications filed by the Department of Finance for use on lands within the watersheds of origin,

would be subject to appropriation for uses outside the watersheds of origin only in accordance with the provisions of the bill. The present provisions of law relating to applications made and filed by the Department of Finance in pursuance of a general or coordinated plan for the development, utilization or conservation of water resources of the State and priorities for the use of water for counties and areas of origin would be repealed. However, applications as to which no assignment has been made or priority released would maintain the respective priorities irrespective of the repeal. The transfer or assignment of such applications to the water project authority or its successor would be authorized only in accordance with the provisions of the bill and the statutory requirement of diligence would not be applicable to the application. The authority or its successor would be authorized to develop, conserve, store, regulate and transport water appropriated pursuant to the applications to lands within the area for which the applications were made. The ultimate beneficial ownership of rights to such waters would be in the land.

CHAIRMAN HANSEN: Any questions by the Committee? Well, you must have done an awfully good job, Mr. Murphy. Now we'll have testimony from the Tule Irrigation District isn't it?

MR. WILLIAM DYE, TULE RIVER SOIL CONSERVATION DISTRICT:

I am William Dye, a rancher from Springville. I represent the Tule River Soil Conservation District, embracing the entire upper Tule River watershed. An area of origin.

Within the last 10 years approximately 200 stockwater and irrigation reservoirs have been constructed within the Tule River District. They have been financed in part by private funds

and in part by the County ACP program. None of these reservoirs at the present time to our knowledge have established a legal right to impound water. As a result of a Joint Memorandum published by the State Soil Conservation Commission and the State Division of Water Resources the people of the District became aware of their obligations under the state law to file for water right to the water so impounded. Upon receipt of the first filing applications the valley area water users registered vigorous protests. They based these protests on the contention that there was no unappropriated water on the Tule River and that they had a vested right in the underground basin recharged by the Tule River.

The U. S. Army Corps of Engineers has in the design and planning stage a flood control and irrigation structure known as the Success Dam Project and located on the Tule River at the beginning of the lower watershed area. The capacity of this structure is to be 75,000 acre feet. The State Department of Finance has filed on 75,000 acre feet of unappropriated water on the Tule River. They hold this water in trust for future assignment to those showing need and beneficial use. Assignment of this water to the Success Dam Project will result in benefits only to residents below the dam, and bring all development in the upper area to a standstill.

The Tule River Soil Conservation District representing the area of origin contends that adequate supplies of water for future development within the district should be reserved for the following reasons:

1. Unappropriated water flowing in the Tule River constitutes the only additional source of supply to

the upper river area. Due to the geology of this area there is no under-ground basin which can be tapped.

2. In the District there is a large acreage of potential rich farm land which has never been developed due to a lack of irrigation water. There is in this connection a Land Capability Study now being made by the U. S. Soil Conservation Service.
3. Valley area water users, the protestants to the aforementioned water filings, have available the Central Valley Project, unregulated pumping from the underground basin, and any future State or Federal water importation projects all as sources of supply. The District area due to its geographical location is denied any of these benefits.
4. Range improvement practices, consisting of brush and weed tree removal are creating new water in the District. A weather modification program has shown indications of increasing precipitation within the area. All of this new water should be retained within the District so long as it is put to beneficial use.

In conclusion the retention of water within the area of origin will allow the orderly development of a potentially rich agricultural area; will afford flood control for the entire watershed and develop recreation and wildlife resources of inestimable social and economic value to the local area and the State as a whole.

ASSEMBLYMAN LINDSAY: Mr. Dye, I received a long list of names on a petition both from inside the district and outside the district which requested this Committee to take action to stop the construction of Success Dam. Is that right?

MR. DYE: Yes, sir.

ASSEMBLYMAN LINDSAY: The people living in that area above Success Dam are opposed to its construction. I take that's the idea.

MR. DYE: Well, we feel that if there are water rights appropriated to those people down below and that we will never be able to get any additional water.

ASSEMBLYMAN LINDSAY: In the area of origin?

MR. DYE: Correct.

ASSEMBLYMAN LINDSAY: Did the State Water Resources Board take any action in relation to Success Dam this year?

MR. DYE: I believe they made a recommendation for a couple million dollars for construction.

ASSEMBLYMAN LINDSAY: Who would construct it?

MR. DYE: The Army Engineers.

ASSEMBLYMAN LINDSAY: As a flood control project?

MR. DYE: The dual purpose.

ASSEMBLYMAN LINDSAY: In your flood in 1951, the area that was damaged lay above the proposed dam?

MR. DYE: That's correct. Practically all the damage that was done to the highways and houses was above the proposed Success Dam.

ASSEMBLYMAN LINDSAY: How many people are in the area of origin up there, I mean in your district setup?

MR. DYE: I wouldn't know exactly how many people. There

is 250,000 acres and about 300 to 400 families.

ASSEMBLYMAN LINDSAY: In the area above the dam?

MR. DYE: Correct.

ASSEMBLYMAN LINDSAY: If the damage that occurred from the flood was above this dam, what is the main purpose then of Success Dam? It seems to me a valid question.

MR. DYE: They want some more irrigation water for the Valley area. That seems to be the main point.

ASSEMBLYMAN LINDSAY: Is this going to be an impounding dam?

MR. DYE: Yes, sir.

ASSEMBLYMAN LINDSAY: It's not a flood control dam from the point that it catches the water and then lets it out over a period of time?

MR. DYE: They're going to catch the water and hold the major portion of it and let out during summer. It doesn't have any provisions for releasing the water immediately.

ASSEMBLYMAN LINDSAY: Has the Tule River district made any filings on the upper part of this?

MR. DYE: We've made several filings, both private and the district made a filing of 45,000 acre feet. Fifteen thousand acre feet for recreational purposes and 30,000 acre feet for future needs of the district.

ASSEMBLYMAN LINDSAY: And did I understand you correctly when you said that plans were now being prepared to use this water?

MR. DYE: That's correct.

ASSEMBLYMAN LINDSAY: Up above Success Dam?

MR. DYE: Yes, sir.

ASSEMBLYMAN LINDSAY: Is your watershed one of those authorized in the small water projects bill?

MR. DYE: No, we haven't got it in there yet.

ASSEMBLYMAN LINDSAY: Have you applied?

MR. DYE: We made applications and we're trying to fulfill the conditions that they set up.

ASSEMBLYMAN LINDSAY: Your district has applied to the State Soil Conservation Commission for a small watershed project under the Federal 566 bill?

MR. DYE: That's correct.

ASSEMBLYMAN LINDSAY: And if your project goes through, then, there wouldn't be any water for Success Dam?

MR. DYE: That's right. We'd catch it first.

ASSEMBLYMAN LINDSAY: So we'd have a dry, very expensively built dam.

MR. DYE: It'll sure be an expensive built dam.

ASSEMBLYMAN LINDSAY: Your purpose here today is to bring this to the attention of the Committee?

MR. DYE: Yes, sir.

CHAIRMAN HANSEN: Any questions by the Committee? Thank you very much, Mr. Dye.

ASSEMBLYMAN KILPATRICK: Wouldn't it be proper under such a request where the certain sense has been outlined for the Committee, to take some official notice of this and send an investigator down there to look into the matter and make a report to the Committee?

CHAIRMAN HANSEN: The only thing we could do, Mr. Kilpatrick,

as I understand the duties of this Committee, is not in the scope of the Committee's work today, but we could pass on the information as handed to us by Mr. Dye to the main Committee for some sort of action. That's about all we can do. I presume that's what we're going to do with the testimony we've had here today.

ASSEMBLYMAN KILPATRICK: Thanks, Mr. Chairman, I'll leave it to you.

ASSEMBLYMAN UNRUH: Is there something involved here where there's a question as to whether the Department of Water Resources has proceeded in the right direction in authorizing this project?

ASSEMBLYMAN LINDSAY: The Department of Water Resources hasn't authorized this, but the State Water Resources Board has filed a budget with the Federal Government or a request to include at least two million dollars probably two and a half million dollars. Maybe there's somebody here from the Department who can tell us.

ASSEMBLYMAN UNRUH: That's what I'm attempting to establish here. There seems to be a question here as to why they should have done this. Mr. Dye has indicated that it doesn't satisfy the requirements of a flood control project, which he says is the reason they undertook it. Now, if this is true, let's find out why they undertook it. If there's someone here from the Division.

ASSEMBLYMAN LOWREY: Before any action is taken by this subcommittee or by the full Committee, my suggestion would be that we contact the legislators from the area and get the thinking of those legislators before you proceed in another man's district and stir up some controversy that might be unpleasant to him or embarrassing to us.

ASSEMBLYMAN LINDSAY: Wasn't this Mr. Patterson's district?

ASSEMBLYMAN LOWREY: We have Senator Williams.

ASSEMBLYMAN LINDSAY: Which Senator do you have?

MR. DYE: J. Howard Williams.

ASSEMBLYMAN LOWREY: And it's my firm conviction that we should take no action without consulting with the Senator. After all, he is chairman of the Joint Water Committee of both Houses and if it's in his district I think we would be presuming to move in in such a case.

CHAIRMAN HANSEN: Any further comments?

ASSEMBLYMAN DAVIS: I agree, Mr. Chairman.

ASSEMBLYMAN LINDSAY: We might say that this presentation will be called to Mr. Williams' attention at once and we'll confer with him and see what he wants to do, if anything.

ASSEMBLYMAN ALLEN: This is pursuant to testimony we had yesterday and this morning and it's in regard to the lack of any filings by the Director of Finance on the Northcoastal streams and I'd like to make a motion that we urge the Director of Finance to make those filings as soon as possible.

ASSEMBLYMAN LOWREY: I move that the motion be tabled.

ASSEMBLYMAN DAVIS: Mr. Chairman, perhaps we should discuss this specific matter when Mr. Belotti is present.

ASSEMBLYMAN LOWREY: I would certainly think so.

ASSEMBLYMAN ALLEN: I'm perfectly willing to wait for Frank to get back. I'm not trying to cut him out.

ASSEMBLYMAN LOWREY: There's other developments in that area besides the State Department of Water Resources. We have some other counties that happen to be interested and I think one county is present here at the present time and to move in without any

more information than you people have now, I think is very presumptuous. You'd better find out what it's all about before you move in. That Eel River development is a billion and a half project, as Mr. Banks said. Besides, we have other developments in the hopper. There have been meetings held between the counties. If you people want to move in and cut our counties off at the pockets on this thing, well that's one thing, but I think you ought to know a little bit more about the project first.

ASSEMBLYMAN ALLEN: If you want to debate the motion I think the State should take action to protect the interests of the whole State in that freeze up there, which we have been told, constitutes a surplus of water to meet the future demands of the whole State of California. Yet, there have been no filings by the Director of Finance on it to protect that interest.

ASSEMBLYMAN LOWREY: I think you better go and have some hearings in the area then before you take any action.

ASSEMBLYMAN ALLEN: We've been holding hearings here yesterday and today. We've been told by expert witnesses that that is an area where there's a big surplus of water that we've counted on for the state water plan and here there have been no filings to protect the State's interest in it. There must be some reason.

CHAIRMAN HANSEN: Well, let's get on with this for the time being while you think over how you want to settle that.

MR. ROBERT T. DURBROW, SECRETARY-TREASURER, IRRIGATION DISTRICTS ASSOCIATION OF CALIFORNIA: Mr. Chairman and members of the Committee, very briefly, the Irrigation Districts Association, of course, is vitally interested in the solution to the county of

origin problem and urges that the Committee and the Legislature do everything that it can to develop a solution. Along that line, soon after the Attorney General's opinions were delivered, the councils that were held on the matter agreed to several steps. I think those steps may need more thought in view of some of the complicated proposals that have been developed here. The solutions as proposed were that first, we should determine the amounts of water in the counties of origin. Second, we should determine the needs in the counties of origin and third, we should determine the exportable surpluses. Then, the amount that may be put into the state water plan for development elsewhere should be tied down in some way by the Legislature. Now, all of those solutions have probably been proposed in one or the other of the proposals that have been given to you here today. The thing which I wish to emphasize and which I think has been somewhat overlooked is that we have before us, at the printers today, this Bulletin No. 2, which was referred to by Mr. Banks this morning. It is a survey of the State in which the State has invested through you people making the appropriations over three and a half million dollars in the state water study of the availability, the ultimate use of water in these various areas. Now, as Mr. Banks indicated this morning, the Bulletin No. 2 is not completely adequate to determine the final usage for individual projects. In addition to Bulletin No. 2, which is about to come from the printers, we have the individual studies, the Northeast County study and various individual county studies which need to be added to that. It is our position that the Bulletin No. 2, plus these individual studies, need to be speeded up; that we need to get Bulletin No. 2 from the printer;

that we need to expedite more of these individual county studies where they are needed and in all of the counties, if necessary. That when those are developed to the point where they are being presented from the Water Resources Board or the Division of Water Resources, whichever are making them, that a very essential step to the acceptance to those reports is public hearings and we suggest that the Legislature consolidate the reports. Some of them are by the Water Resources Board and some of them are under the Division of Water Resources, as I understand it. That it give the authority to the Water Resources Board to schedule hearings at some date presumably approximately a year after the reports are put out and say that at that time public hearings will be held on the findings of these various reports. That will give the local areas and the areas of deficiency away from those local areas time to set up their engineering studies and to make determinations and to report back to the Water Resources Board at the public hearings held a year from that date as to whether they are in agreement with the report or in disagreement with the report. That the Water Resources Board then come up from those hearings with the recommendation to the Legislature as to the final determination of the quantities of water in those counties of origin. I think that in that way we can come up with some specific figures which will be agreed to or come very close to being agreed to both by the counties of origin and by the counties that wish to develop away from it. I have full faith from seeing the charts presented by Mr. Berry, yesterday, and the bar charts if you will recall showed apparently ample water for development of most of the state water plan. I think that if we come to real public hearings on

these amounts and then go ahead with our normal appropriation procedure before the State Engineer, we can allay many of the fears of people that we need to engage in constant water fights over this water and that there will be sufficient water for the projects which we wish to develop simply by the normal procedure of development. That all we need to do is go ahead and appropriate the funds for the building of the projects and the allocations of the water can be made by application to the State Engineer. It is that proposition which has been endorsed for presentation here to you today by the Irrigation Districts Association.

CHAIRMAN HANSEN: Any questions by members of the Committee?

ASSEMBLYMAN SCHRADE: Mr. Durbrow, do I understand from your presentation here today that the State Irrigation Districts Association are in favor of building the dams, acquiring the property and they are building the dams?

MR. DURBROW: I don't know that they have gone that far. In other words, we have been in favor of building the Feather River Project as indicated during the session last year, but the proposal here was simply that we expedite the determinations of the quantities of water and the ultimate use of water and have public hearings upon those.

ASSEMBLYMAN SCHRADE: You stated to give them possibly a year to state their objections....

MR. DURBROW: That is right. Time for engineering studies...

ASSEMBLYMAN SCHRADE: And, in the meantime, what is the position of the Irrigation District State organization for that year? What do they recommend that we do in that year?

MR. DURBROW: I think that if within the next month or so

we will have Bulletin No. 2 before us. I think that in general quantities if we can accept that at its face value it will show that there is ample water for the development of a state water plan and that on the basis of Bulletin No. 2 alone we can go ahead and appropriate funds for the construction of projects.

ASSEMBLYMAN DAVIS: Would the Irrigation Districts Association support the authorization of the entire basin as a unit of the Feather River Project since you supported the project last legislative session?

MR. DURBROW: I can't say, Mrs. Davis. I think that would have to be presented back to the Association. They have never had that determination before them. I don't see any reason why they should not, as Mr. Banks reported here today, it appears logical that the whole area should be developed. Now, whether it should all be developed as one project at one time or not would be something that the Association would have to consider further.

ASSEMBLYMAN DAVIS: Then I have another question. What is your position as of this date on a financial proposal that was before the Legislature last legislative session relative to the financing of small water projects which would develop the basins up above the large projects and certainly take care of the situation as far as putting water to beneficial use?

MR. DURBROW: The position of the Association on that legislation was that it was in favor of legislation which would assist local areas in the development of their projects provided it did not require state grants of money. In other words, so that the lending of the state credit was endorsed by not the lending of funds which would not be returned to the State.

ASSEMBLYMAN DAVIS: As you will recall, the bill was definitely amended to that effect in the latter part of the session. Then, are you saying that you now propose to support a bill of that kind if it is once again introduced?

MR. DURBROW: In that form, if I understand the position of the Association, it would be in favor of that bill in that form.

ASSEMBLYMAN DAVIS: Thank you.

CHAIRMAN HANSEN: Any further questions?

ASSEMBLYMAN McGEE: Probably you haven't taken a position, but could you tell me off hand what is, if any, the thinking of your organization relative to the need for a constitutional amendment? Has there been talk of it?

MR. DURBROW: We haven't had that as a consideration before us. The feeling that I have received has been varied in the various districts. I think that most of our northern districts feel that maybe it isn't so necessary and the feeling in many instances that if we could allay the fears that there isn't enough water, that possibly the constitutional amendment could await the actual determinations of the amounts that are needed by the counties of origin. Then, after that point we could come to some sort of a constitutional amendment which would allocate the waters in accordance with the state water plan.

ASSEMBLYMAN McGEE: You feel secure enough with just a statute of counties of origin?

MR. DURBROW: Right.

CHAIRMAN HANSEN: Further questions? Thank you very much, Mr. Durbrow. I would like to at this time acknowledge the presence of Assemblyman Nisbet. Glad to have you up here if you'd care to

come. I regret very much that a couple of men far up in the northern end of the State who would like to go home tonight didn't send up word that was the case and we tried to carry this Committee on in a manner that won't inconvenience too many people. If it's all right with the Committee I would like to call Mr. Joe Patten, County Water Engineer, Shasta County.

MR. JOSEPH E. PATTEN, COUNTY WATER ENGINEER, SHASTA COUNTY:

My name is Joseph E. Patten. I am County Water Resources Engineer and Secretary of the Shasta County Water Resources Board, and am speaking in behalf of the Shasta County Board of Supervisors and the Redding Chamber of Commerce.

We sincerely appreciate this opportunity to appear before this special committee on water to express our views regarding water problems as they affect our County.

Shasta County lies at the head of our Great Central Valley Basin. We are predominately a foothill and mountain county, except for about 30,000 acres of irrigated land in the existing Anderson-Cottonwood Irrigation District. At present, within the whole County, there are about 40,000 acres of irrigated land out of a potential net irrigable acreage of approximately 215,000 acres. Our present use for all purposes in the County is approximately 230,000 acre feet and, based on presently available data, we estimate that our ultimate diversion requirement will be about 1,200,000 acre feet. These figures are being reviewed and revised as a result of studies being carried on within the County at the present time. The great advances in irrigation practices during the past few years and, in particular, the continued increased application of sprinkler type irrigation has brought many of our heretofore

unproductive lands into the production of good permanent pasture.

As far as water is concerned, we definitely are one of the major counties of origin. Over seven million acre feet, or approximately ten per cent of the estimated average annual run-off in the State of California, originates within the boundaries of Shasta County. Nearly five million acre feet of this run-off originates above Redding and is controlled by Shasta Dam for release during the irrigation season to meet the water and power requirements of the Central Valley Project. None of this developed supply is presently being used to meet irrigation needs in Shasta County. It is being exported to meet the demands of lands along the Sacramento River, Delta Mendota Canal, and, in affect, along the Friant Kern Canal some 450 miles from its source.

Central Valley Project, for which Shasta Dam is the key storage facility, was a major development for the benefit of the State as a whole with no provision made for the development of the local area of origin. By lack of a broader scope of the orderly development of our water resources, in the past, we are faced with the committal of a large portion of our "cheaper" water to areas south of us and, as a practical matter, we no longer have any claim to it. It should be made mandatory to include both in the planning stage of investigations and in the legislation authorizing major projects adequate provisions for the development of local and upstream projects at the same time.

Our irrigable lands, for the most part, lie adjacent to smaller tributaries and at the present time depend almost entirely on the unregulated flows of these streams for their water supply. The water rights of these streams have been adjudicated and any

expansion of an irrigation program is dependent entirely upon the development of seasonal storage. In comparison to the Central Valley Project, or state-wide plans, projects to facilitate development of these areas are but a drop in a bucket and have never been given proper consideration in over-all water planning programs.

In order that we, in Shasta County, would have a master plan for the orderly development of all our water resources to irrigate all our irrigable lands and to meet other requirements, the County negotiated a contract this year with the State Water Resources Board for the preparation of a report and master plan to blueprint our future development. This investigation was initiated to emphasize local potentialities and to illustrate their potential integration with other major or state-wide plans. The cost of the study is estimated at \$100,000 and is being paid for on a matching fund basis.

Our County program may seem to be a rather comprehensive one. However, this problem of equitable distribution of the State's water is one of the major domestic problems of the State of California today. Not only do we have to know our estimated future requirements so that we can, with proper reservation, relinquish our so called surpluses to the counties of deficiency but, also, we must have comprehensive plans for local development to facilitate legislation which would protect our needs and rights to that development.

As a result of our county-state cooperative investigation, we expect to arrive at plans for several small projects within the county. Some of these projects may have the possibility of being developed in conjunction with other proposed major developments.

Most of them, however, would have to be developed on their own as individual small projects.

Since the best way we know of keeping the water within the counties of origin is for those counties to develop it and put it to beneficial use, it appears imperative to us that a vehicle should be provided whereby a program to develop these small projects could be carried out. The small projects legislation, sponsored by Assemblywoman Pauline Davis, which passed both houses of the legislature, this year, but was vetoed by the Governor, is the type of legislation which could provide the vehicle and solve the problems of many of the mountain counties.

At water hearings, and meetings, throughout the State, too much emphasis has been placed on major development, the mass transportation of water from the areas of surplus to the areas of deficiency, with little consideration of the upper sub-basin areas. If a special session of the legislature is called, next year, we strongly urge that this committee exert every effort to impress on the Governor, the importance of small project development in the mountain counties, and to include this legislation as an item of special attention at this session.

It is our sincere feeling that there are large quantities of surplus waters which originate within the boundaries of our County. We also realize that some changes have to be made in the present sections of the counties of origin provisions now on the statutes to permit the counties of deficiency to participate financially in conveyance facilities to bring them additional water, and also to assure them of a firm commitment of that water. Orderly development of water resources on a state-wide basis is stymied

until such changes are made.

In making these changes, however, we respectfully urge this committee to give very careful and serious consideration to a fair and equitable allocation of water to all the areas of origin. As I stated, last April, before the State Assembly, meeting as a committee on water, we believe the necessary basic data are available in the Division of Water Resources, at the present time, to make such an allocation on the basis of major hydrographic areas. These data are summarized in Bulletins one and two of the State Water Plan.

We recommend, to you, as an initial step toward the equitable distribution of the State's water, that Bulletins one and two be adopted as the best presently available data upon which an allocation of water can be made to the seven major hydrographic areas. To be realistic, we believe we must admit there will be changes in these data by reason of longer historical records and possibly other reasons. However, we doubt that there can be reasonable justification for any major change and see no reason why they cannot be used as a basis for initial allocation purposes. A logical next step would be a further breakdown of these data to facilitate allocation to minor water-shed basins.

In conclusion, we would like to thank the committee for this opportunity to appear, and urge you to refrain from outright repeal of the sections of the Water Code pertaining to the Counties of Origin Law until a just and equitable allocation to each watershed of origin has been agreed to. We also urge you to expedite legislation which will provide a vehicle whereby a small projects program can be initiated. We further request that you recognize our local participation in Water Resources investigations, and our

willingness to cooperate in any way possible, to assist in the realization of the orderly development, and equitable distribution, of our water resources.

(City Council of the City of Redding supported above testimony by Mr. Patten by resolution at meeting November 7, 1955. Received in letter dated November 8, 1955 signed by Mr. George C. Fleharty, Major, City of Redding.)

CHAIRMAN HANSEN: Any questions by the Committee?

ASSEMBLYMAN LINDSAY: In the reservation in Shasta Reservoir for an area of some 300,000 acre feet, I believe, was any of that reserved for your county?

MR. PATTEN: You're speaking of the reservation of 300,000 acre feet to be used within the Sacramento Valley Basin. That is now presently being used to the extent I believe of a little over three times that by diverters along the Sacramento River.

ASSEMBLYMAN LINDSAY: Are they under contract or permit from the Bureau of Reclamation?

MR. PATTEN: No, sir.

ASSEMBLYMAN LINDSAY: What about the reservation that was put in the Bureau of Reclamation's permit for the Pit River area and above?

MR. PATTEN: There are reservations as I understand it in the Central Valley Project Act or possibly in the Watershed Protection Act which provides for water to be served in those areas above Shasta Dam.

ASSEMBLYMAN LINDSAY: Haven't you filed with the Bureau and I believe with the State, too, a proposal on Clear Creek to bring the Trinity Project in a different direction to take care of an area in your county to the south and west of the Sacramento River?

MR. PATTEN: We have filed for all the unappropriated waters of Clear Creek to be used in two service areas in our county.

ASSEMBLYMAN LINDSAY: Does this affect the Trinity Project any? I thought you had an alternate proposal?

MR. PATTEN: The application shouldn't affect the project at all.

ASSEMBLYMAN LINDSAY: And what about your eastside lands, Cow Creek country?

MR. PATTEN: That area between Sacramento River and Cow Creek was considered as one of the service areas or which the Clear Creek waters might be applied.

ASSEMBLYMAN LINDSAY: That's on the other side of the Sacramento River though?

MR. PATTEN: Right.

ASSEMBLYMAN LINDSAY: There's no water in Shasta Dam now for that area? I mean, all of it is being used below the dam?

MR. PATTEN: I see no reason why a project couldn't be developed over there and during the interim the supply could come from Shasta Dam. Ultimately, I don't believe it's there.

ASSEMBLYMAN McGEE: What percentage of the run-off of Mount Shasta flows into the Shasta Reservoir?

MR. PATTEN: That I don't know, Mr. McGee.

ASSEMBLYMAN McGEE: I mean approximately....

MR. PATTEN: I'm not sufficiently familiar with the upper drainage to know. There's part of it that goes the other way.

ASSEMBLYMAN McGEE: Where does it ultimately go? Into the Klamath River?

ASSEMBLYMAN LINDSAY: That's just the Shasta River flow.

MR. PATTEN: There is a portion of it that goes to the other side. I don't know just how much of it.

ASSEMBLYMAN MCGEE: What do you mean by the other side? It flows north into the Klamath.

MR. PATTEN: Into the Klamath.

ASSEMBLYMAN LINDSAY: That's the Shasta River part?

MR. PATTEN: I believe so.

ASSEMBLYMAN LINDSAY: And some of the big....like the Montegue Irrigation Project theoretically gets its water from Mount Shasta, too, doesn't it?

MR. PATTEN: You're out of my area and I'm not too familiar with that country so I don't feel qualified to answer that at all.

CHAIRMAN HANSEN: Any further questions by the Committee? Thank you very much, Mr. Patten. Mr. Joe Allen, Northern Supervisors Association.

MR. JOE ALLEN, NORTHERN SUPERVISORS ASSOCIATION: Mr. Chairman, members of the Committee, I have no prepared statement. I was called by Charlie Fitzpatrick, President of our Association just before I left and asked if I would appear before the Committee here on behalf of the Northern Supervisors Association. We have nine counties in our area and we are counties of origin and for the most part counties of surplus.

ASSEMBLYMAN LINDSAY: Would you identify the nine counties?

MR. ALLEN: I think I can. There's Modoc, Siskiyou, Shasta, Trinity, Glenn, Butte, Plumas, and Lassen. We have discussed this problem in our committee meetings. Marshall Lane was to appear here. He is the chairman of our committee on water, but he was unable to be here and we have discussed this problem. We're vitally interested

in water in the north and we feel that we want to hold back only that water which we need for an orderly development and full development of our areas. We are in kind of a peculiar situation there in the north. The majority of our counties are either federally-owned or partially-federal and partially state-owned and have a very low tax base for the most part. I do not want to infringe now upon any of the counties that will appear of our nine counties. One has just appeared, but, we, for the most part are very heavily governmentally-owned and we do need help in preparing these projects and seeing them through. Most of our counties have already entered into a plan of water development, not only water development, but looking into their needs for water, and water development in their areas as they are financially able to do so. Part of our counties have completed their studies and others are just starting in. Some have not as yet started, but we do feel that it's very important not to change these laws that are already in existence in too big of a hurry. We will, in the very near future, most of the counties, be prepared to make statements as was presented by Shasta as to how much water is necessary to fully develop those lands and also how much water they have in excess. I would like to say something for Siskiyou County which I am board member there and we are carrying on studies now and by the end of the month we plan on having a statement which we can submit to you of the waters we feel in Siskiyou are needed for the development of Siskiyou County.

ASSEMBLYMAN LINDSAY: What's going to happen to you if they sign the COPCO contract?

MR. ALLEN: That's the \$64 question, or \$64,000, I don't know which. We, as a board, have requested that the signing of

the contract be held up until such time as we have an opportunity to present what our needs are in Siskiyou County. Whether that will be done or not, we don't know. We are told that it will have no effect, but as far as part of our county is concerned possibly that is true. Other parts now, I just wouldn't want to gamble on them.

ASSEMBLYMAN LINDSAY: No effect, because you don't get any water, so you can't donate anything, so there won't be any effect. But what you have told us here when you said that most of our counties were largely federally-owned was in effect that you are in this straight jacket because you are largely federally-owned so you do not have a tax base big enough to base a bond upon to build a water project.

MR. ALLEN: That is true in most cases.

ASSEMBLYMAN LINDSAY: But after the water project is built and you irrigate and you raise the values of lands you would have a sufficient tax base to actually pay off a project.

MR. ALLEN: We, particularly in Siskiyou County, feel that way very much and we have areas that definitely can use water that are not using water today because of the fact that it is not economically feasible for some of those areas to put water on the land, that is to set up a project. Once a project is set up, most of the projects can pay out.

ASSEMBLYMAN LINDSAY: Wouldn't a fair guess of say a maximum of \$20.00 an acre assessed valuation for dry farm land be about tops in your County?

MR. ALLEN: Yes, it is.

ASSEMBLYMAN LINDSAY: But irrigated land is over a \$100.00

isn't it?

MR. ALLEN: That's right.

ASSEMBLYMAN LINDSAY: And so you're caught in that straight jacket until you get the project you don't have enough tax base to bond yourself to build the project. Once you could get the project, you would have enough tax base, but how are we going to break this iron band that's around you? Unless we have some kind of State aid.

MR. ALLEN: I personally feel that State aid is an answer to part of our problem there in Siskiyou County. Mr. McGee was talking about Mount Shasta and the drainage of Mount Shasta. Mount Shasta drains to the south into the Sacramento which originates in Siskiyou County and to the north and west into the Klamath River. Those two drainage basins are derived and start there in Siskiyou County. The Klamath River does not actually start in Siskiyou County, but a good portion of the upstream water comes from that area.

CHAIRMAN HANSEN: Any further questions?

ASSEMBLYMAN McGEE: I'd like you to comment on this. It seems to me that in those areas and counties that are so greatly federally owned that you should encourage to the maximum the construction of projects by private monies such as the P.G. & E. so that you could raise your tax base, both by the project itself and by the wealth that it would produce through irrigation and use of the waters. Is that a plan in those counties to do that? To encourage that type of development?

MR. ALLEN: We have in our areas, speaking of Siskiyou County, an electrical outfit of California-Oregon Power Company and it has been rather difficult to see eye to eye with the

California-Oregon Power Company on many things. Personally, I can't see eye to eye with them on this water problem. They have granted in some cases water for certain areas, but....

ASSEMBLYMAN LINDSAY: In your particular topography....

CHAIRMAN HANSEN: Are you through Mr. McGee?

ASSEMBLYMAN MCGEE: No, I....

ASSEMBLYMAN LINDSAY: Let me clear this one point and I think it will bear on what Pat asked. In your particular topography it's either power or irrigation. You can't very well put the two together.

MR. ALLEN: We feel that there is sufficient water for irrigation in Siskiyou County and also sufficient water in the Klamath River for power. There's no reason why there shouldn't be enough for both with the full development of all privately owned lands within that particular area.

ASSEMBLYMAN MCGEE: It's always been a mystery to me why those who have so little assessed valuation in their counties fight so avidly against the increase of that assessed valuation by someone who wants to do it.

MR. ALLEN: We don't fight for the increase in assessed valuation. We fight for the rights of reserving enough water for the orderly development of such areas as we have there.

ASSEMBLYMAN MCGEE: Couldn't they both be done by joint effort?

MR. ALLEN: I think they can.

ASSEMBLYMAN DAVIS: Mr. Allen, perhaps what you are thinking is the possibility of borrowing money from the State for a period of years to develop these small water projects so that you might place

your water to beneficial use since we are so heavily federally-owned? Would that be of assistance to you?

MR. ALLEN: That possibly would be of assistance to some of our areas, yes.

CHAIRMAN HANSEN: Any further questions? Well, thank you, Mr. Allen. Is Mr. Don M. Smith here? Sacramento Valley Irrigation Committee. Is there anyone to speak for him? Westlands District - Jack W. Rodgers is he here or is anyone here to speak for him? County Supervisors Association. Is there anyone to speak for them?

MR. VINCENT COOPER, COUNTY SUPERVISORS ASSOCIATION: We had scheduled Harold Kennedy, Chairman of our Legal Advisory Committee to discuss the counties of origin problem, but due to the fact that his son has broken his leg and is in serious condition, Hal was unable to be here. We hope to communicate with the Committee by letter or something like that. As to our association on this general problem, we are now making a survey of the 58 counties to determine the state of development in each county as to its organization to deal with the subject of water and then in January, our committees are going to meet to give additional study to the problem. One of the things we have asked them to do is to review Bulletin No. 2 and for each county to check on that and see if they agree with the findings in Bulletin No. 2 and so at the present time we are awaiting those developments, Mr. Chairman.

CHAIRMAN HANSEN: Any questions by the Committee? Thank you Mr. Cooper. Mr. Dan Pellicciotti.

MR. DAN PELLICCIOTTI, SUPERVISOR OF BUTTE COUNTY: Our County of Butte and particularly at this time my home area of Oroville is deeply concerned with the problems you have under

discussion today. We of Butte County greatly appreciate this opportunity to give our view to you members of the State Legislature who are specifically charged with considering water problems.

Butte County is one of the Counties of Origin. We have the two major streams of the Sacramento Valley, the Feather and Sacramento Rivers, passing through or by the County. Also, we have a number of smaller streams such as Butte Creek which ultimately will figure in the total water supply which can be made available to the State.

The water supplies which can be made available to our County from these sources are vital to the ultimate development of our County. Where other counties have exhaustible resources such as petroleum or minerals, our County has abundant water supplies which renew themselves each year. In all areas of the State adequate water supplies are essential to the development and use of these other resources.

We feel that maximum use should be made of our water resources in ultimate development of the County. However, recognizing that our welfare in a large measure depends on the welfare of the entire State, we feel very strongly that any and all waters surplus to our legitimate needs should be made available as necessary in other areas of the State where local supplies are deficient. Accordingly, we urge this committee to take whatever steps are necessary to see that adequate information is developed on ultimate needs for water in all portions of the State. We believe that work now under way by the State Division of Water Resources will provide this information. We urge completion of the studies as soon as possible.

An equitable allocation of the State's available water

supplies between the areas of surplus and deficiency will be an important pre-requisite to any future major water projects in the State.

Even though our County has very large amounts of water available we find ourselves in a difficult position to develop the water through storage and deliver it to the points of use on the farm and in the cities. Generally speaking, the usable portion of the natural flow of these streams is already in use. Additional future use will depend on construction of dams and reservoirs together with distribution canals and pipe lines. Engineers and economists inform us that development of water supplies for these local purposes of irrigation and domestic and industrial uses is not economically feasible without some financial assistance from the associated power resources that will be available through the development of large projects on the major streams. Accordingly, we urge this committee to consider overall plans for development of the State's water resources which will assure financial as well as physical integration of the smaller projects in our County with the large projects such as the Feather River Project and its Feather River dam near Oroville. Power revenues which will be made available by a power plant at the Feather River dam should be used to develop projects in Butte County as well as used to carry Feather River water to the areas of deficiency in the San Joaquin Valley and Southern California. The power which can be developed on the Feather River is one of our important resources. It should be used at least in part to develop and distribute local water supplies. We urge early completion of studies of the State Water Plan now under way by the Division of Water Resources so that such integration of

our small projects with the large ones can be planned and assured for the people of our County.

CHAIRMAN HANSEN: Any question by any member of the Committee?

ASSEMBLYMAN LINDSAY: Are you proposing here that such projects as the Oroville-Wyandotte be integrated into the Feather River Project?

MR. PELLICCIOTTI: The Wyandotte Irrigation District - I can't speak for them, Mr. Lindsay, but however they own the water rights of the South Fork and I don't know whether it is planned to give that to the State of California or not. However, they are now planning, I presume, with Yuba County and possibly financing the dam up on the South Fork.

ASSEMBLYMAN LINDSAY: In your statement did I understand you to suggest that a block of power be reserved for the use in Butte County, similar to the proposition in the Trinity Project?

MR. PELLICCIOTTI: Essentially.

ASSEMBLYMAN LINDSAY: As I understand it, in the Trinity bill from the Federal Government, 25% of the power is reserved for use in Trinity County. If I caught the meaning there of your proposal it was that a block of power be reserved for the use of Butte County. Mr. Patten, have any studies been made in your County on the amount of water use of water requirement per acre of land?

MR. PATTEN: The Division of Water Resources through this Northeast Counties investigation....

ASSEMBLYMAN LINDSAY: No, I'm talking about your own.

MR. PATTEN: Our department is set up more as a

coordinating agency, not an investigation agency.

ASSEMBLYMAN LINDSAY: Is there any way that we could get figures from your local districts or local water users up there of how much water they think is necessary per acre of ground in the various types?

MR. PATTEN: I would assume so. You can get the opinions of people in our area, yes.

ASSEMBLYMAN LINDSAY: Is there any possibility of getting you to start doing that for the Committee?

MR. PATTEN: I can do that.

ASSEMBLYMAN LINDSAY: Because I can assure you that before this thing is settled it's going to be very important that all of these counties have their local people come up with a reasonable figure that they think for water use for irrigation uses.

MR. PATTEN: I might point out to this Committee that we are working very closely with both the people in the Northeast counties investigation and the rest of the Division of Water Resources in their investigations and for the most part have agreed with their theories. We are having some difficulty, but hope to iron those difficulties out. But, if you're asking for a specific request that we present your Committee with our information, I can do that.

ASSEMBLYMAN LINDSAY: That's what I would like to have for the Committee's use anyway.

MR. PATTEN: Is there any time limit for that?

ASSEMBLYMAN LINDSAY: Sometime between now and the first of March.

MR. PATTEN: Fine.

ASSEMBLYMAN DAVIS: Mr. Chairman, I would like to ask Mr. Patten, the people of the State Department of Water Resources that you're working with on a coordinated plan, are they using all the information that they can possibly find from local associations and districts there in Shasta County?

MR. PATTEN: That's right. That's why I say we are....

ASSEMBLYMAN DAVIS: That information, Mr. Lindsay, would be available from that report that is going to be submitted from Shasta County.

ASSEMBLYMAN LINDSAY: From Shasta County or from the State?

ASSEMBLYMAN DAVIS: From the State of California with Shasta County....

MR. PATTEN: With our approval....

ASSEMBLYMAN LINDSAY: Well, we had a very interesting thing develop in Placer County. When the State Engineer had filed his report on how much water could be reserved. Fortunately, we had 130,000 acre block of land right in the middle of it that had a detailed Soil Conservation survey on it, not a reconnaissance type survey. When we compared the uses of water between the two, we found a 23,000 acre differential.

MR. PATTEN: Acre or acre foot?

ASSEMBLYMAN LINDSAY: Acres, but that the State said could not be irrigated that we were actually irrigating.

MR. PATTEN: Then did you get that corrected?

ASSEMBLYMAN LINDSAY: There's a difficulty, a very serious one going on right now and so that's why I said I'm warning the people in these counties, local people, that they've also got to make their own determinations to bring before the Legislature and

be prepared to argue it and in some length and some detail because in one county we found pro rating it, that we are probably short at least 150,000 acre feet of water in reservation and that gets to be a considerable quantity.

ASSEMBLYMAN DAVIS: Mr. Chairman, I might answer Mr. Lindsay's question that some of the counties have done that very thing. For instance, Plumas and Sierra Counties have made independent studies beside the one that was made by the State Division of Water Resources. Sometime, even though we recommend this to the different counties, it's a little difficult to sell the Board of Supervisors on expending the county's money to make such an independent study.

MR. PATTEN: I think there's another point here, Mr. Lindsay, if I may for just a minute. We feel that the Division of Water Resources is staffed with experts in the various fields. Our County cannot staff my department. I am the head of a department up there in effect. But I am the department and that's all there is to it. It would cost the county a sizeable sum of money to staff that organization and to carry out these investigations which you are suggesting. Our approach to the problem is this: That the Division of Water Resources and other organizations for that matter, including the Reclamation Bureau, are staffed with experts. We can get that information from them if we properly supervise the work and follow through on it.

ASSEMBLYMAN LINDSAY: Of course, we were just fortunate that we had another group of experts who were just as competent that had already made a check investigation which did not agree. All I'm telling you is that....

MR. PATTEN: Well, then carry the ball from there.

ASSEMBLYMAN LINDSAY: You've got to go from there. You've got to be sure that you agree because forever is a long time.

CHAIRMAN HANSEN: Any further questions by the Committee? Thank you very much, Mr. Patten. I am going to ask if there's anyone here to appear for the League of California Cities?

MR. LOUIS KELLER, LEAGUE OF CALIFORNIA CITIES: I'll try to set a record for brevity. We have no position on the problems that are being considered by the Committee at this time. The League of California Cities is becoming increasingly interested in the subject of water and at the last annual conference of the league, two of the best papers in which the most interest was shown related to the subject of water. A league committee is in the process of being appointed, and it is hoped that by the next time you meet or at least very early next year, there will be policy recommendations which we can come forward with and present to this Committee on these subjects. That's all. Thank you, Mr. Chairman.

CHAIRMAN HANSEN: Any questions by the Committee?

ASSEMBLYMAN DAVIS: Mr. Keller, what position are you taking then regarding some of the smaller communities throughout the State that happen to belong to your association relative to water shortages that they have and do not have the adequate finances to develop the proper supply of water that they need?

MR. KELLER: Mrs. Davis, that is a problem which will be considered by the Committee when it meets and if recommendations are made by the committee they will be made to the board of directors on that question. No decision has been made as yet.

CHAIRMAN HANSEN: Thank you very much, Mr. Keller. California Farm Bureau Federation, Mr. Robert Hanley?

MR. ROBERT E. HANLEY, EXECUTIVE SECRETARY, CALIFORNIA FARM BUREAU FEDERATION: This of necessity will be brief, Mr. Chairman, because I find myself in the peculiar position of having our policy-making body, the house of delegates, in a convention committee at this moment in San Francisco reviewing many of these problems that have been discussed here today. I think actually it was rather fortunate for us that we'll have the benefit of the information that was brought before the Committee to add to our deliberations. I think it can be said that historically our organization and our people have supported very vigorously the philosophy expressed in the present area of origin law. Early this year, with the introductions of proposals in the session and the opinion of the Attorney General, we of necessity took a look at our thinking and on the recommendation of our state-wide water problems department and our Board of Directors, approved the following statement as a framework of policy which was later affirmed by the house of delegates at their mid-year meeting in May. I'd like to take just a moment to read it to you.

"We recommend that the present area of origin law be extended to all areas of origin in the State. We further recommend that the Legislature proceed with caution in making any changes in the present law relating to areas of origin. We insist that if any changes are made in the present laws relating to areas of origin that the water requirements of the watershed or area of origin from which water is to be transported shall be sufficient to meet the future as well as the present needs of the inhabitants in that area and only surplus water be transported to areas of need."

As I said, I'm quite sure that this statement will serve and

will be reaffirmed at this session of the delegates and will serve as a basic framework of policy guiding our organization in considering more specific proposals that have been brought before you here today.

I don't want to muddy the waters further, Mr. Chairman, but considering the very high percentage of water that originates in the so-called public land counties in our State, lands federally owned, I wonder if it would be proper for me to ask the Committee, if, in its deliberations on this problem, any consideration will be given to the decision of the Supreme Court last June in relation to the Oregon Case, the Pelton Dam case. It would seem that may have a very far reaching effect on some of the problems that we're faced with in California.

ASSEMBLYMAN LINDSAY: Briefly, that said that when the Federal Power Commission made a finding that they were no longer subject to state law.

MR. HANLEY: That is as I understand it and as quoted in this statement of Senator Frank Barrett of Wyoming.

ASSEMBLYMAN LINDSAY: And that was a finding by the United States Supreme Court?

MR. HANLEY: As of June 6. Briefly it stated that the court sustained the granting of the license, notwithstanding the failure to comply with state law on the ground among others that the Desert Land Act of 1877 does not apply "to the use of waters on reservations of the United States". It appears clear that the court used the term reservations to include all public lands withdrawn or reserved from sale or disposition under the Public Land laws such as National Forests. It would appear at least a very,

very important matter for consideration in this whole problem. It applies to all federal land reservations.

ASSEMBLYMAN LINDSAY: This State is 48% owned by the Federal Government. In the areas of origin of water it is probably as much as 70 to 80% owned.

MR. HANLEY: Thank you, Mr. Chairman.

CHAIRMAN HANSEN: Any questions by the Committee?

ASSEMBLYMAN DAVIS: What position, if any, has the State Farm Bureau taken relative to the financing of some of these projects; small or large?

MR. HANLEY: Mrs. Davis, these subjects are under review at the present time. I think that in analyzing the previous positions and policies of the organization that as far as the smaller projects are concerned we've always, of course, encouraged and supported local development. I think we would support the extension of credit to local units of government of state credit.

ASSEMBLYMAN DAVIS: I certainly hope that is the case in the future, because I found that you people opposed the small water projects legislation to the Governor's office this last legislative year. That was one of the reasons that it received possibly a veto.

MR. HANLEY: It was not the philosophy expressed in the legislation, so much as it was the method of financing.

ASSEMBLYMAN DAVIS: The method of financing was using the credit of the State. Is that what you were opposed to?

MR. HANLEY: Not the credit of the State, but the grant feature.

ASSEMBLYMAN DAVIS: There was no grant feature in the bill that went to the Governor's desk. That was amended out of it.

MR. HANLEY: We did not oppose the bill at the Governor's office.

ASSEMBLYMAN DAVIS: We won't argue about it.

CHAIRMAN HANSEN: Any further questions? Thank you very much Mr. Hanley. California State Grange. Anyone here to represent them with a statement? Mountain Counties Water Conference. Is there anyone to take Mr. Chappie's place here on the stand? Have I overlooked anyone?

MR. TOM H. LOUTTIT, ATTORNEY FOR MOKELUMNE RIVER IRRIGATION DISTRICT: My present clients are the Mokelumne River Irrigation District, some 8,000 acres also within the Mokelumne River Watershed and three Reclamation Districts.

I've been in certain litigation involving the East Bay Municipal Utility District, but it appears to me if I may say so, that we are struggling with a year which I might call the year of ultimate. In other words, 45 years from now and then some X year unknown to us all. I feel, however, from the suburban areas of which I represent that the urban areas under the guise of municipal use are really using their water for industrial purposes. I think one solution possibly is the use of storm sewer waters within the metropolitan areas. For instance, if you take 436 square miles, change it from land to roofs and streets, you will have approximately 200,000 acre feet per year running through your storm sewers and in the East Bay running into the Bay. If you take your sewerage water and, of course, this is not exactly a study, but the time for aesthetic considerations is somewhat past, if you will take the sewerage water running through the sewer based upon a gallonage of 167 gallons per person per day, you will find that

between 45 and 50 percent of those waters runs through the sewerage sewers. An expert upon the recapture of sewerage water is Mr. Harold B. Gotaas, a professor at the University of California, who, on October 31, 1955, appeared and made an announcement in the newspaper. However, I do believe that in studying this project and the study of storm sewers and sewerage water was authorized by this Legislature in 1949 and the authority is contained in Water Code Section 229, 230 and 231, that it would be serving the entire public of the State of California if this Committee would make or cause to be made further studies of the recapture of storm sewer water and sewerage disposal water.

There are other questions I would like to present, but I think they have been better presented by others. Thank you very much.

CHAIRMAN HANSEN: Any questions by the Committee?

ASSEMBLYMAN MCGEE: Certainly before we in Southern California can use the so-called Feather River water we're going to have to do something with that because in actuality what they're pumping out of the Delta for Southern California drinking water is sewer water.

MR. LOUTTIT: That is practically so. The San Joaquin River by the time it gets down to Stockton is all reconverted or reclaimed or returned waters.

ASSEMBLYMAN MCGEE: So when they talk of pumping a million and a half acre feet of water into Southern California, they're talking about giving us sewer water. It's a fact.

MR. LOUTTIT: There's nothing wrong with sewer water. Gentlemen I'm in all seriousness. If you're talking about the year

ultimate, I think there should be a study of sewerage water and how they can reconvert it now for use, especially industrial use. And, of course, storm sewer water is even better.

ASSEMBLYMAN McGEE: Don't you think, sir, that this problem that you speak of should be incorporated and the financial aspects of it taken into consideration in the financing of an overall State water plan? Or should, for instance, the responsibility for the cleaning up of the Delta water be left exclusively to us who would use it at the cost of a hundred million dollars to build a plant?

MR. LOUTTIT: My first practical suggestion in this, Mr. McGee, that you get in touch with Harold B. Gotaas, whose services have been used by the State of California before. He is in Who's Who and is a sanitary engineer of national note. He claims that you can now reconvert sewerage water and the byproduct will pay for the cost of reconversion.

ASSEMBLYMAN McGEE: Yes, there are many in Southern California who say we can take the money that we would invest in the Feather River Project and spend it to reclaim our own sewerage water instead of importing sewerage water.

MR. LOUTTIT: That's quite all right with me because we've got a use for our sewerage water up in Mokelumne River.

ASSEMBLYMAN McGEE: Where can I find this gentleman?

MR. LOUTTIT: At the University of California. He's the head of the Sanitary Engineering Department of the University of California and you've also used him as your smog expert down there.

ASSEMBLYMAN McGEE: You certainly wouldn't advocate dumping the Delta water into the drinking system of San Francisco or the Bay Counties areas would you? Yet, that's what the Feather River

Project proposes to do to Southern California?

MR. LOUTTIT: No, what I specifically have in mind is the East Bay Municipal Utility District recapturing their own storm sewer water, which would give 200,000 acre feet. That's specifically what I have in mind.

ASSEMBLYMAN McGEE: Alameda, alone?

MR. LOUTTIT: Right. Four hundred thirty-six square miles.

ASSEMBLYMAN LINDSAY: According to the newspapers today that Delta water still would be relatively cleaner than your air down there.

ASSEMBLYMAN McGEE: I'd stipulate that.

CHAIRMAN HANSEN: Any further questions? Mr. McGee?

ASSEMBLYMAN McGEE: No, that's it, Mr. Chairman, and thank you very kindly for your indulgence of me all week long and because I am not a member of this sub-committee.

CHAIRMAN HANSEN: Any further questions? While we're having a little fun here actually this is not as funny as it may seem. The Biemond Plan is being considered to look into this matter of pollution of the good water from the North and it's going to cost a lot of money. The whole question of reconstituting sewerage is certainly going to have to be gone into as probably a cheaper way to get water for farming, for instance. I see no reason why that can't be done. It's being done in places already, so it's not an inconsequential thing at all.

MR. LOUTTIT: Mr. Chairman, your last report on this very question was made in 1952 pursuant to authorization by the Legislature and I think there's been advances since that time that this Committee ought to in all fairness get another report.

ASSEMBLYMAN MCGEE: Is that a report by one of our standing Committees?

ASSEMBLYMAN COLLIER: I think that I am correct in the statement that before sewerage now is dumped into the ocean in the Los Angeles area it is treated. So, we already have the facilities for treating sewerage water. That is uppermost in a lot of the people's minds in Southern California now that we will be able to add additional monies for further treatment of the sewerage here at a much lower price than we would be paying for the water at \$45 an acre foot twenty years from now in bringing the water from the northern part of the State. So, that is something the experts in Southern California are considering right now, rather than investing so much money in a development of the upper part of the State. I think it's of mutual benefit that even though we are building homes and those Class 1 areas; for agriculture and so forth, we are actually furnishing a market for those people whom you represent are growing their products and sending them into the city.

MR. LOUTTIT: You see in my territory, for instance, I have one Reclamation District which under the California law means that you are taking the water off. In 1927, it had 208 property owners. It now has on 1600 acres 4,000 property owners. Instead of being farms, it's streets and houses. Consequently, we get water off that area at the rate of 50,000 gallons a minute when it rains.

ASSEMBLYMAN COLLIER: But do you have any suggestions how to remedy that?

MR. LOUTTIT: Well, the suggestion I have is that when you

get down to the end of the line I might say, the end of the river, that the storm sewer water, as distinguished from the sewerage water, that the storm sewer water be recaptured and used for industrial use.

CHAIRMAN HANSEN: Any further questions by the Committee?

ASSEMBLYMAN LINDSAY: Mr. Chairman, I would like to ask Mr. Durbrow one question before we break this up. Would it be possible for your association to ask your districts to file with the Committee their opinion of water use and water requirements in their individual irrigation districts according to crop?

MR. DURBROW: I think so, Mr. Lindsay. I think in a lot of instances you'll find that pretty hard to get, even for them to get. When you were questioning the man from Shasta County, I had in mind that our Anderson-Cottonwood Irrigation District up there diverts 9 acre feet per acre for the acres irrigated. Now, that doesn't mean that the consumptive use of water is anything like that, but they do divert that much per acre irrigated and a great deal of it of course gets back to the river.

ASSEMBLYMAN LINDSAY: That's the important thing, Bob, because we've been talking about the difference between consumptive use and diversion use. It takes nine acre feet of water for them to get their normal consumptive use out of that water. The rest of it is either return flow or goes into underground basins because of their soil condition.

MR. DURBROW: Well, it's partly inefficient system, too. But there are other factors in there I think. Certainly, there is a great deal of that type of thing that goes on which makes it awfully hard to determine the actual use or to get any figures

which mean very much.

ASSEMBLYMAN LINDSAY: If we set up a table, for instance, on crops like alfalfa, lettuce and beets and clover and supply it to you, could you send it through your districts and see what we could get back out of it?

MR. DURBROW: I might suggest this. In the District Securities Commission Report, which are filed annually by all irrigation districts, there is a table in there which asks for the amount of water used per acre, which is filed in there for every district.

ASSEMBLYMAN LINDSAY: There's no breakdown though?

MR. DURBROW: There's no breakdown by crop, but the average is in there for every district.

CHAIRMAN HANSEN: I rather think that's going to be a little hard to get on the basis of crops because you take a district like the Fresno Irrigation District. I don't know how many crops they grow in the Fresno Irrigation District. It's something around 200, and I just don't think you would get them to do it.

MR. LOUTTIT: Water for crop usage, various crops, have been introduced and they will be continued to be introduced in the application of the East Bay Municipal Utility District, which is opposed by other persons and both sides will have data on how much respective crops take per acre.

CHAIRMAN HANSEN: Yes, for a particular kind of soil.

MR. LOUTTIT: That's right. Of course, we have a terrifically variable soil - anything from sandy soil to further down the stream, but we have figures on those and they'll be available after the case is closed, which will last about two weeks more.

CHAIRMAN HANSEN: Any further questions by the Committee?
If not, we thank you very much. I don't think I've overlooked
anyone now. I want to thank the Committee for their cooperation.
I declare this meeting adjourned.

EXHIBIT "A"

November 3rd. 1955

I recommend;

That the State Legislature, at its first future Legislative session, either Special or Regular, set up a Water Committee under an appropriate, name that will clearly distinguish it from all and sundry other Committees, a dirth of which, already exist in Sacramento, with an office in the State Capitol Building, to which any one with any information in favor of or against any proposed water plans may present his views and receive proper consideration.

This Committee to consist of not less than seven (7) members representing each of the proposed Zones, which Committee will include the Attorney General either as a member or an advisor or both.

This Committee to have power to accept or reject any part of, or all of any plans now proposed or may in the future be preposed for the Conservation and distribution of the Water Supply of California.

This Committee to be supplied with adequate funds and power to employ one or more skilled and competent Water Engineers separate from the State Engineering Office, and entirely in dependent therefrom, who, as the first step will proceed to eliminate the Oroville Dam from consideration and begin a more approved Gravity system covering higher Stream Dams and Reservoirs within the Water shed of the Feather River, to be followed by the construction in sequence, proposed Dams in all streams as far South as and including the Nashville Dam on the Consumnes River, at the same time make a re-estimate on all possible higher stream Dams in this entire area which from present estimates would appear to exceed in capacity, ten million acre feet of water, even through the dry seasons from 24 to 34.

I further recommend that this work be started immediately and while continuing in these watersheds, that a resurvey by the new Board be made of all available water supplies as far as the Oregon Line together with Gravity possibilities on the many streams emptying into the Pacific Ocean West of the Trinity Mountains as contained in the investigations of Mr. Charles Webber, The State Engineer and the Federal Bureau of Reclamation, all of whom have gathered valuable information on these possibilities, some of which may prove economically feasible, and if so would go a long way in relieving many thousand acres of fine land in the Sacramento Valley on the West Side of the Sacramento River, now receiving scant recognition but very short of a sufficient water supply extending from Clear Creek West of Reeding in the North to the Monticello Reservoir site in the South, to which it is possible to Transport by gravity, all of the proposed importation from Trinity River,

Page 2 of Exhibit "A"

which might be of great importance to farms in that part of the vast area lying West of the Sacramento River, all of which should receive consideration in overall plans.

I further recommend to our people that they worry no more as The Wiley Gravity Plan will, when constructed satisfy all areas, and when well understood and relieved of the burden of pumping, will justify, bonding the State to pay the bill to which even Southern California could well subscribe.

Respectfully submitted,

/s/ W. M. Wiley
W. M. Wiley

EXHIBIT "B"

11/3/55

Assembly Interim Subcommittee
On Water & Public Works

Room 4202 Capitol Bldg.
Sacramento, California.

Attention Mr. Chairman

Gentlemen:

As your agenda on California Water problems would be incomplete without discussion of the SHAFFER plan for IMPORTING WATER INTO THE TRI-COUNTY AREA I am taking the liberty of enclosing you a copy of my letter, of Nov. 1st, 1955, to the Santa Clara County Water Forum of Nov. 1st, 1955 at San Jose.

This letter describes the simple SHAFFER plan of importing Sacramento River water cheaply, quickly, and effectively into Santa Clara County without all the delays and enormous costs of other plans proposed.

Kindly excuse presentation of this plan by this method but I was only apprised of your meeting and hearing, late today, and cannot either be present or write a proper letter of presentation to you.

Yours sincerely,

/s/ Cleve F. Shaffer
CLEVE F. SHAFFER
710 Taylor St
San Francisco

Enc. Letter (copy) to Santa
Clara Water Forum.

CLEVE F. SHAFFER

Consultant

Transportation and Traffic, Water Crossings, Civic Plans,
Mechanical Ideas, Military Equipment

Santa Clara County Water Forum-Nov. 1st, 1955
San Jose State College - Music Bldg.
San Jose, Cal.

Gentlemen:

Your attendance at this meeting is evidence of the urgency of importing water. Testimony this month upon the subject has amply demonstrated that even one more dry year will have from bad to disastrous results upon the growth and prosperity of the County, therefor your Forum would be incomplete without consideration of the SHAFFER Water Plan for Santa Clara County.

This plan is the ONLY engineering proposal which CAN provide your water (and better water) within two years or less. All other plans are based upon elements of time such as required in the heavy construction of Dams, Barriers, Canals, Tunnels, High-pressure pipe lines, Large Pumping Plants, Rights-of-Way, Permits, Litigation, even the Engineering, alone, on these plans would require a years work.

Can you afford to WAIT 5 to 15 years and/or until the Feather and Trinity waters are developed? The tremendous cost of these other plans (up to \$150,000,000) is not even dwelt upon herein, but the question is asked as to who will have to pay? Also how long will it take to get an agreement regarding it from either the taxpayer, State or Federal agencies?

Nothing radical in engineering or unused in practice is proposed in the SHAFFER Plan--It is utterly simple and therefor would only cost from \$15 to \$18 million dollars--which, uptodate, seems to be its only demerit.

Instead of Building Dams and Barriers across Bays and Rivers etc, Climbing Mountains (requiring heavy pressure pipe and pumping plants), digging long Tunnels and Canals; Crossing busy populated Districts, Highways, Railroads etc. (all requiring expensive Rights-Of-Way); the Shaffer Plan offers an ENTIRELY LEVEL ROUTE via a Sub-Marine Pipeline laid upon the BOTTOM of the various Bays, from the Sacramento River Intake-Filter, near Rio Vista, to the vicinity of Alviso.

This 75 mile pipeline to lie below any wave action in a shallow, dredged, submarine trench upon the bottom and drag covered after pipe is laid. The pipe being parallel to the general direction of the Tidal Flow would not be effected by it. Repairs from accidental anchorage (a rarity) could be quickly made by a special design of diving bell. The flexible characteristics of this long pipeline would offset earthquake hazards to which heavy, rigid pipe would be subject. The pressures both inside and outside the pipe would be practically equalized.

The Inflow-Filter would be a simple gravity entrance. To overcome wall friction of the pipeline (which would have a low head and speed of water) several Booster plants of small power will be required. The pipeline would be laid in the usual and customary manner of underwater laying, by a barge whereon the pipe sections are connected and rolled off the stern as the barge progresses.

The two $\frac{1}{4}$ " x 48" welded steel pipelines would supply about 100 million gallons of good water daily without materially effecting salt water intrusion lower down at the Delta. The Shaffer Plan would provide better water than any other plan because the water is not contaminated by flowing many miles through OPEN canals. Of course, with either Feather or Trinity projects operating MORE parallel pipelines can easily be laid sufficient to meet all needs for the Tri-Counties in the predictable future.

This water from the Shaffer Plan, could in two years, be pumped direct into the Counties various Reservoirs and Systems, (or used to bring up the low watertable). It does NOT have to be delivered expensively to percolation areas as has been suggested for Delta and Canal water. Financing, and Interest costs, plus engineering, plus far greater upkeep in other proposed water projects will, of course, be reflected in the cost of the delivered water (when received).

I again reiterate that the Shaffer plan is entirely practical (as ANY engineer will admit). Three Submarine pipelines now cross San Francisco Bay carrying a million gallons per day. One has been in continual use since 1927; and two since 1935. Many other Submarine pipes are in use all over the world, and large diameter pipelines up to and over 1000 miles long are of common knowledge.

The cost is based upon a bid for the specially treated (Submarine) pipe. It would seem that to use the bottom of the Bays etc. would require only Federal permission as no unusual Tidal, Shipping or Laying problems

Page -3-

are proposed.

The Shaffer Plan is therefor submitted for the proper investigation of your Forum and your "Feasibility Survey" of it. When a more detailed presentation of its engineering is desired it will be furnished.

Yours respectfully

/s/ Cleve F. Shaffer

CLEVE F. SHAFFER
710 Taylor St
San Francisco, 2,

EXHIBIT "C"

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
Sacramento

November 23, 1955

Honorable Lloyd W. Lowrey
Assemblyman, Third Assembly District
P.O. Box 23
Rumsey, California

Dear Mr. Lowrey:

We wish to take advantage of the kind offer you made while we were in attendance at the Legislative Subcommittee Hearing on November 4, 1955, to make available to this office a copy of the Puls Report on the Feather River Project. We would appreciate the opportunity to review this report and hope that you may be able to furnish us with a copy which we may retain in our files.

Very truly yours,

/s/ Harvey O. Banks
Harvey O. Banks
Acting State Engineer

IN:CG

cc:
Honorable William W. Hansen
Assemblyman, 33rd Assembly District
3435 South Walnut Avenue
Fresno, California

EXHIBIT "D"

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
Sacramento

November 22, 1955

Honorable Vernon Kilpatrick
Assemblyman, 55th Assembly District
3715 Abbott Road
Lynwood, California

Dear Mr. Kilpatrick:

This is in response to your request for information as to the runoff from the Central Valley made at the recent legislative sub-committee hearing on November 4, 1955.

With regard to your request, it is assumed that you mean the outflow to the ocean from the entire Central Valley drainage basin. This outflow has been computed by deducting the estimated consumptive use of water in the Delta and measured diversions of water from the Delta from the measured inflows to the Delta as recorded at gaging stations on all of the major tributary streams. This outflow has been computed on the basis of full operation of the existing Central Valley Project, including Shasta and Folsom Reservoirs, for the period 1927-1951. These outflows as given in the attached tabulation appear on Table F-5, Appendix F, "Feasibility of State Ownership and Operation of the Central Valley Project", published in 1952.

In the event this information is not the information you desire, please advise.

Very truly yours,

/s/ Harvey O. Banks

Harvey O. Banks
Acting State Engineer

Encl.

cc: Hon. William W. Hansen

(Ed. note: Tabulations mentioned in this letter are on file in Committee Office.)